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Prison and drugs in Europe

Current and future challenges

25

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and Liesbeth Vandam

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Foreword

It is my great pleasure to introduce this new European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) publication, Prison and Drugs in Europe, which presents a comprehensive overview of the field. It explores in depth issues ranging across drug use and drug-related problems among the prison population, the available social and health service responses to drug-related problems in prison, including the most recent evidence of effectiveness, and the drug supply and markets inside prison. It also discusses recent and future challenges in the prison and drugs field.

Prison and the drugs phenomenon are intertwined in complex ways. We know that people who are in prison, or have been imprisoned, are more likely to use or have used drugs and to experience drug-related problems. We also know that once in prison their drug-using behaviour is likely to change. In order to adequately and efficiently respond to their health and social needs it is vital to have a good understanding of the patterns and prevalence of drug use among the prison population, and their consequences, and to know which responses and interventions work best in prison settings and which are actually available in European countries. This is particularly important when we consider that it is in prison that many people who use drugs access social and health services for the first time. Addressing drug supply and distribution is also a major challenge for prison services, particularly so with the recent spread of new psychoactive substances in prison and the creative use of new technologies to transport illicit substances into these settings.

The EMCDDA has been monitoring the drug situation for the last 25 years, and the field of drugs and prison is a central component of the work we carry out. We anticipate that this report will provide an important and much-needed basis for supporting the development and implementation of national policy and practical interventions, in addition to stimulating research activities at the European level.

The importance of the prison setting for tackling drug problems is underlined in the new EU drugs strategy 2021-2025 and its action plan, which includes a strategic priority aimed at addressing the health and social needs of people who use drugs in prison settings and after release. The principles of equivalence and continuity of healthcare provision in prison are central in these documents. The key role of drug-related services for people in prison with drug problems is also in line with United Nations (UN) Sustainable Developmental Goal (SDG) 10 to reduce inequality and with UN SDG 3 to ensure healthy lives and promote well-being for all at all ages.

To be useful for policy and practice, information needs to be technically robust and timely. It is to this end that the EMCDDA has developed a methodological framework to monitor drugs and prison, including monitoring tools such as the European questionnaire on drug use among people in prison. These efforts aim to harmonise data collection in Europe, to support the exchange of best practice and lessons learnt, to strengthen drug monitoring and to support European countries in their responses to current and future challenges. Importantly, this publication has only been possible with contributions from a range of partners and experts, to whom we are indebted, including members of the Reitox network of national focal points and the EMCDDA Scientific Committee, international prison experts, prison professionals and people with lived experience as well as scientific colleagues at the EMCDDA.

In a nutshell, we hope that, by highlighting the contemporary opportunities and challenges associated with responding to the complex world that constitutes drugs and prison at this

time, this study will represent an important step towards providing better care for the many people that experience both drug problems and imprisonment and the communities they return to and, ultimately, will contribute to a healthier and safer Europe for all. In this spirit I invite you to read this publication.

Alexis Goosdeel
Director, EMCDDA

Executive summary

Background

On any given day, around 856 000 people are in prison in Europe. People in prison are substantially more likely to have used drugs, to use drugs regularly and to experience drug-related problems than their peers in the community. This is so, although there are significant differences between countries, and it is especially marked in the case of women. Yet, available data on the prevalence of drug use among people in prison, on people's need for addiction care services, on the availability of such services in prison and on the drug supply to prisons remain scarce, and many challenges remain with regard to harmonisation and comparability between countries, despite some progress being made in recent years. A better understanding of these issues is necessary to inform policy decisions, needs assessment, service planning and drug treatment organisation in prison.

This European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) Insights report provides a comprehensive overview of the current knowledge and latest developments in the field of drug use and prison in the 30 countries reporting to the EMCDDA up to the end of 2020: the 27 EU Member States, Norway, Turkey and the United Kingdom. It also identifies important gaps in our knowledge, challenges for better provision of interventions and implications for policy and practice. The report provides an overview of the current situation in the field of drugs and prison in the following areas: drug use and drug-related problems among the prison population; the availability of drug-related services in prison; the evidence available for effective interventions in the prison setting; drug supply and supply reduction interventions; and future challenges relating to prison and drugs.

Key findings

People in prison report high levels of lifetime prevalence of substance use before imprisonment and increased levels of consumption, especially of heroin, cocaine and amphetamines, compared with the general population. Although many people will stop injecting drugs when they enter prison, for those that continue, the use and reuse of contaminated equipment is not uncommon, contributing to an increased risk of transmission of infectious diseases in these settings.

The lifetime prevalence of substance use before and during imprisonment varies by country and is influenced by differences in prison organisation, drug policy and drug use prevalence in the community, as well as differences in survey methodology. Women in prison are reported to be particularly vulnerable and at risk of problematic drug use. A particular challenge in recent years has been the increasing use of new psychoactive substances in prison, particularly synthetic cannabinoids. The initial undetectability of these substances in routine urine testing is thought to be a main contributing factor.

People in prison have poorer physical and mental health and social well-being than their peers in the community and a lower life expectancy. They also have higher rates of infection of HIV, hepatitis B virus (HBV), hepatitis C virus (HCV) and tuberculosis. Mortality among people with prison experience is higher than that in the general population, due to several risk factors in this population, including drug use and injecting drug use. For those injecting opioids, the risk of dying from a drug overdose increases markedly in the initial period after release.

Many drug demand reduction interventions that have been demonstrated to be effective in the community have been implemented in prisons in Europe, often following some delay and with insufficient coverage, including assessment of drug use; drug information provision and drug prevention; pharmacological treatment, including opioid substitution treatment (OST); psychosocial interventions; interventions targeting drug-related infectious diseases; and preparation for release and social reintegration. OST in prison is available in Norway, Turkey, the United Kingdom and all EU Member States except Slovakia, yet in most European countries coverage in prison remains low.

Interventions available in prison to prevent and control infectious diseases include testing, HBV vaccination, treatment of HIV and hepatitis C, and education on infection risk and prevention. However, access to testing and treatment remains low. Other harm reduction interventions with proven effectiveness in the community, including needle and syringe programmes, condom distribution programmes and safe tattooing programmes, are available in only a few prisons in Europe. Interventions preparing people for release from prison include social interventions, referral to external services and overdose prevention strategies; only a limited number of countries provide naloxone to those leaving prison.

Diverting offenders with problem drug use towards rehabilitative measures and away from incarceration may have a number of positive effects such as preventing the damaging effects of detention and contributing to reducing the costs of the prison system (e.g. infrastructure, staff, etc.). Alternatives to prison are available in some countries in Europe, although approaches to diversion vary considerably and overall availability remains limited.

There is limited research on health- and drug-related interventions in prison and the effectiveness of some interventions is not yet clear. While the body of evidence may be reasonably well developed in community settings, and analogies could be made, the specificities of the prison environment need to be taken into account in future studies.

The prison and the community connect and intersect as people move between one and the other, and this is particularly so in the case of people with drug-related problems. Providing continuity of care as people move between prison and the community is key to achieving sustainable and effective treatment outcomes, and it is likely to have a significant impact on public health.

Compared with the early 2000s, the availability and levels of provision of health and social care services targeting the needs of people who use drugs in prison have improved in several European countries; yet, for the most part, people in prison are faced with a limited range of treatment options, and equity and continuity of care remain unachieved principles in the majority of countries in Europe. The World Health Organization recommends that health ministries provide and be accountable for healthcare services in prisons and that the management and coordination of all relevant agencies and resources contributing to the health and well-being of people in prison be a whole-of-government responsibility, where prison health services and professionals are fully independent of prison administrations and yet liaise effectively with them.

Health and social service responses in prison may have a significant public health impact on morbidity and mortality, not only for people in prison but also for the community as a whole. Engaging people with drug-related problems in treatment while in prison may reduce their drug use, their risk behaviours (including the risk of contracting infectious diseases) and the risk of overdose upon release.

Drug-related problems are just one of many vulnerabilities experienced by people who spend some part of their lives in prison. Social marginalisation and inequality are important

risk factors for both drug use and offending behaviour, requiring integrated multiagency approaches that address drug use and drug-related problems along with other important health and social problems.

Improving the evidence base on health interventions in prison (including their impact on public health) and on the needs of people in prison with drug-related problems (including women, lesbian, gay, bisexual and transgender people, and foreign nationals) is necessary to inform needs assessment, service planning and treatment organisation. It also provides useful information on the people with drug-related problems in the wider community.

There is a high demand for drugs in prison settings, and people in prison, their friends and families, and those working in prisons, as well as organised criminal groups, may be involved in facilitating drug supply to prisons. Routes of supply and mechanisms of distribution in prison are adapted to the particular circumstances of each prison and flexible enough to be adjusted to make use of new technologies (e.g. drones) or to overcome new challenges, such as increasing security measures and attempts by prison authorities to deter drug use. Although a variety of security measures have been implemented to prevent drugs from entering the prison environment, there is limited information about the impact of these measures.

In conclusion, while the evidence base is gradually increasing, more studies are needed on the outcomes of interventions targeting demand as well as supply reduction in prison settings. It is also important that data are comparable across countries in order to support regional drug monitoring, facilitate the exchange of best practice and lessons learnt, and assist in the development of responses that meet current and future European challenges in this field.

Overview of the chapters

This publication is divided into eight chapters, which together present the reader with a comprehensive and in-depth analysis of prison and drugs in Europe.

Chapter 1 provides an introduction to the area of drugs and prison in Europe, including a description of the data sources and the regional and international initiatives around prison and drugs.

Chapter 2 presents epidemiological data on the drug consumption behaviours and patterns among people in prison in Europe. It discusses the drug and prison nexus by looking at prevalence data before, during and after imprisonment. The chapter unpacks the interconnections between drugs, drug use and prison.

Chapter 3 focuses on the general health of people who are in prison and use or have used drugs. Particular attention is paid to infectious diseases and psychiatric comorbidity. The mortality of people who use drugs in prison is also addressed, both during imprisonment and in the period following release. The chapter also discusses the healthcare needs of women with drug problems who are in prison.

Chapter 4 maps the organisation and implementation of interventions in European prisons, starting with a description of the main principles guiding the provision of interventions and policy objectives indicated in current policy strategies. It provides an overview of different policy and institutional frameworks for prison health and outlines the availability and coverage of drug treatment interventions.

Chapter 5 focuses on harm reduction interventions in European prisons, providing a summary of available interventions, both directly and indirectly related to drug problems, in European countries.

Chapter 6 discusses the evidence for the effectiveness of drug-related interventions in prison and identifies the main knowledge gaps. The chapter also discusses the fundamental principles of healthcare provision in prison and details EU strategies addressing drugs and prison.

Chapter 7 focuses on the supply of drugs in prison settings. Prisons present a unique set of circumstances and challenges for those involved in drug markets and those trying to prevent drug supply. The chapter considers the main routes and methods of supplying illicit drugs and mechanisms of distribution inside prison and discusses the main measures implemented in prison to tackle them, with a particular focus on the use of drug testing.

Chapter 8 brings together key issues raised in the previous chapters with a view to discussing current and future challenges in the field. The main insights are presented under four themes: social vulnerabilities, the connection between prison and the community, the balance between care and control, and alternatives to imprisonment. Important implications for both policy and practice are outlined.

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CHAPTER 1

An introduction to prison and drugs in Europe

Liesbeth Vandam, Linda Montanari, Ines Hasselberg, Luis Royuela, Paul Turnbull and Paul Griffiths

Compared with the general population, people in prison report higher rates of drug use and drug-related problems. And people with problematic drug use have higher rates of offending, often linked to their drug use, and an increased likelihood of spending part of their lives in prison, frequently experiencing recurrent short periods of imprisonment. Drugs and crime, however, are interlinked in a complex nexus that is neither simple nor linear (de Andrade, 2018). Importantly, many repeat offenders are not involved in drug use and many people with problematic drug use do not commit non-drug-related crimes.

People who experience imprisonment represent a dynamic and rapidly changing population that is also in regular contact with the community. This means that, by addressing drug-related problems in prison settings, the health of both people living in prison and the community they return to can be improved, producing an overall societal benefit.

This EMCDDA Insights publication provides a comprehensive overview of current knowledge and the latest developments in the field of drug use and prison in Europe. In this way it offers an important basis for evidence-informed policymaking, public health interventions and research activities. It draws on multiple sources of data to provide an overarching account of the epidemiology and the health and social service responses to drug problems in prison, as well as highlighting key issues in drug supply to prisons, in the 27 EU Member States, Norway, Turkey and the United Kingdom.

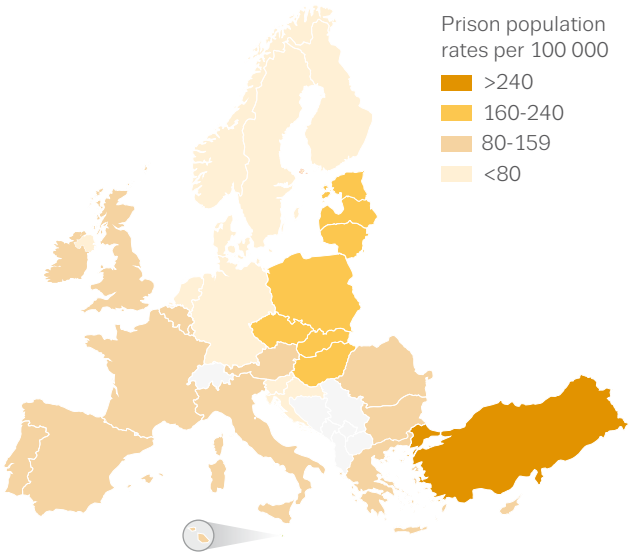
This introductory chapter sets the discussions in context while providing background data on prison populations in Europe and introducing the available sources of data.

The European prison population

In 2019, there were over 11 million people in prison worldwide, of which over 856 000 ([1]) were held in the approximately 2 000 prisons located in the 27 EU Member States, Norway, Turkey and the United Kingdom (Walmsley, 2018; Aebi and Tiago, 2020). This corresponds to a prison population rate of 142 people per 100 000 (number of people in prison per 100 000 inhabitants of the country or region), ranging from 50 in Finland to 329 in Turkey (Figure 1.1). This is substantially lower than the figures for the United States (450) and Russia (386) (Walmsley, 2018). The number of people in prison decreased in most EMCDDA reporting countries between 2008 and 2019.

FIGURE 1.1

Prison population (per 100 000 inhabitants) in the EU Member States, Norway, Turkey and the United Kingdom, 31 January 2019



Source: Aebi and Tiago, 2020.

([1]) Between 2018 and 2019 the prison population in the 27 EU Member States, Norway, Turkey and the United Kingdom increased by more than 56 000. This is attributable to an increase of more than 80 000 detained in prison reported by Turkey, where the last available data before 2018 were from 2016. In most of the other countries the prison population decreased. For more information, see Aebi and Tiago (2020).

Women represent around 5 % of the prison population (around 41 000), varying from 3 % in Bulgaria to 5 % in Cyprus. The prison population has an estimated mean age of 37 years, ranging from 33.6 years in Denmark to 41 years in Italy.

An estimated 11 % of people in prison in Europe are foreign nationals, with considerable national variation — from 0.2 % in Germany to 74 % in Luxembourg. Around one fifth of people in prison have not received a final sentence, ranging from 8.4 % in Czechia to 48 % in Luxembourg.

More than half (52 %) of people in prison are sentenced to 5 years or more, with 37 % sentenced to between 1 and 5 years and 11 % sentenced to less than one year. The main offences for which people are given prison sentences are property crimes such as theft and robbery (32 %), drug offences such as drug possession and drug trafficking (18 %) and homicides (12 %). Recidivism rates tend to be high, and a significant proportion of people in prison reoffend upon release and experience multiple prison spells. Prison overcrowding, measured by occupation per available prison place is reported in 12 countries.

Research on and monitoring of drugs and prison

Challenges for data collection in prison

While gathering information on the health and social care needs of those in prison is important from an individual and public health perspective, undertaking research and monitoring in this setting is particularly challenging, especially when focusing on drug use behaviours and drug-related problems.

There are multiple factors affecting the feasibility of data collection in prison settings, including the structural limitations of prison systems, the characteristics of the prison population and the often low priority attributed to it by both political and research agendas. Structural limitations to prison research and monitoring include complex and sometimes lengthy procedures to access prisons for research purposes, including ethical approvals (see box 'Ethical research in prison'); limited physical space available for conducting research; restricted schedules conditioned by the organisation of daily life in prison; and the limited availability of research staff, including prison healthcare staff, who are sufficiently motivated and skilled to conduct prison research.

In the publication particular attention is paid to the terminology; in particular the term 'people in prison' is always used instead of 'prisoners', in order to avoid stigma and to highlight that people can experience imprisonment at some point of their life, but they should enjoy the same rights and respect as every member of the society (Tran et al., 2018).

There are also challenges to participation in research. Many people in prison have low levels of education and literacy, which may limit their understanding of survey and research questions, and the significant proportion of foreign nationals means that many may not have sufficient understanding of the official language to enable communication. There is also a high prevalence of mental health problems among people in prison. While none of the above represent grounds for exclusion from research efforts, these challenges may affect the time and resources demanded to collect data among such groups. In addition, people in prison are often moved between places of detention, and between prison and the community, which may disrupt research implementation. Issues of data validity are particularly important in studies requiring the disclosure of current or former drug use or drug-related activity. In this context truthful reporting may be hindered by both a general mistrust among the prison population and fears of punitive repercussions.

Improving available evidence on prison and drugs

Efforts to overcome lack of information and obstacles to conducting data collection, monitoring and research in prison and among prison populations have been made at international, European and national levels. However, few countries in Europe have a comprehensive national system that captures and understands the nature of drug use, drug-related problems, interventions and treatment provided within custodial settings. In general, data at the European level are patchy and lack cross-national comparability, largely due to differences in legal, political, cultural and social systems.

A more complete picture would require further institutional efforts to improve harmonisation between different data sources and allow for comparisons across sources.

At international and European levels there are three main sources of information on prison populations and prison conditions: Eurostat, the Council of Europe and the World Prison Brief. Each source employs different methods for data collection and analysis, hindering efforts to use these data sets in comparative or complementary ways.

Ethical research in prison

Prisons are punitive settings where people are deprived of their liberty and in this context research and monitoring needs to be informed and supported by the highest ethical standards (Shaw et al., 2014).

Ethics in prison research is informed by international and European guidance that draws attention to the particular risks of research among prison populations and provides recommendations on how to mitigate and address such risks. In many countries, research ethics boards or other designated authorities play a key role in providing guidance for ethical research, granting approval (or not) to studies based on the measures taken to ensure sound ethical research, and in mediating any emerging ethical disputes (Council of Europe, 1996).

The closed nature of prison institutions, the systematic control exerted on individuals, and underlying pressures from prison authorities and other staff pose significant challenges for privacy protection, confidentiality and voluntary (and well-informed) consent of research participants in prison settings (United Nations General Assembly, 2003).

Establishing sound ethical measures from the start of the research, defining how they will be implemented in each phase, and anticipating possible ethical challenges and how to best address them is thus of particular importance in prison settings. Prison research should follow high scientific standards and aim to improve knowledge and understanding of the prison population and the prison context. Prison researchers' scientific independence from prison administration and prison control functions avoids conflicts of interest and may work to ensure that research follows high ethical standards (Watson and Meulen, 2019).

While people in prison are not devoid of agency, they are nevertheless constrained in their scope for action. Therefore, it is important that research in prison is carried out in a way that promotes its potential benefits for people in prison and reduces the risk that the findings are misused for the gain of some or negatively affect the research population (Coughlin et al., 2016).

Additionally, it is recommended that health research in prison is conducted in line with the principle of equivalence of care (United Nations General Assembly, 2015). It is necessary to refer to international standards and guidelines for the treatment of people in prison and the international and national mechanism set up to ensure the respect of human rights in prison. Finally, when prison research addresses drug use, it is necessary to ensure that people disclosing an illicit behaviour are not incurring in any additional punitive measures (Montanari et al., 2017).

Several key international organisations have made efforts to improve the available evidence on the needs of people in prison regarding health and drug-related problems, and the interventions targeting them, in order to provide policymakers with robust planning instruments.

In 2017 the World Health Organization (WHO) Health in Prisons Programme (WHO-HIPP) (see box 'WHO Health in Prisons Programme') launched the Health in Prisons European Database (HIPED), which collects information from countries in the WHO European region on the health needs of people in prison and the available interventions. HIPED includes drug-related information, defined in coordination with the EMCDDA. In addition, within WHO-HIPP a Worldwide Prison Health Research and Engagement Network (Wephren) was established in 2018. Wephren seeks to facilitate the exchange of expert advice and promote innovation in addressing healthcare and health inequalities facing people in prison.

At the international level, the United Nations Office on Drugs and Crime (UNODC) publishes analyses in the field of prison and drugs. It collects data on prisons from UN countries, with a special focus on HIV and disease prevention, drug treatment and best practices. In addition, Harm Reduction International (HRI), a non-governmental organisation, publishes information on drugs and prison. Its annual report is based on contributions from harm reduction practitioners, academics and advocacy groups from around the world (Stone and Shirley-Beavan, 2018).

WHO Health in Prisons Programme

In 1995 the WHO Regional Office for Europe set up the Health in Prisons Programme (HIPP) to encourage and support WHO Europe countries to address the higher prevalence of health problems in prison. Since its inception HIPP has developed to become a crucial international movement to promote health in prison settings. HIPP's main activity is to give technical advice to member states on the development of prison health systems and their links with public health systems and on technical issues related to communicable diseases (especially HIV/AIDS, hepatitis and tuberculosis), illicit drug use (including substitution therapy and harm reduction) and mental health. A status report of the implementation of health interventions in prison in the WHO-Europe region was published in 2019 (WHO, 2019).

Growing body of evidence on prison health

While research is limited, there is a growing interest in the health of people in prison in European countries. A number of systematic reviews conducted in recent years shed some new light on key aspects of epidemiology and healthcare in prisons. These include reviews focusing on problem drug use (Fazel et al., 2017), high-risk behaviours (Moazen et al., 2018), communicable diseases (Dolan et al., 2016; Falla et al., 2018; Vroling et al., 2018; Erickson et al., 2019), active case finding (Tavoschi et al., 2018), and treatment of opioid dependence (Hedrich et al., 2012).

Nevertheless, when assessing the body of evidence, important limitations are apparent. There is a lack of comparative studies, as many are based on single-site observations. In addition, the outcomes or health interventions under study are often poorly defined, thus jeopardising future comparative efforts. Within the European region, prison research activity is mainly concentrated in a small number of countries; overall most studies have been conducted outside Europe, mainly in the United States, which may limit the transferability of the findings.

To complement the findings from the peer-reviewed literature, some systematic reviews rely substantially on grey literature such as conference abstracts, national and sub-national reports, monitoring data from healthcare services or case studies (Tavoschi et al., 2018; Vroling et al., 2018). These clearly have intrinsic limitations related to the validity and reliability of the findings.

EMCDDA framework for monitoring drugs and prison in Europe

In 2013, the EMCDDA developed a methodological framework to monitor drugs and prison in European countries in an effort to harmonise information across countries. The framework identifies five main monitoring components that are necessary to obtain a comprehensive overview of the drugs and prison issue: background information on the prison population; the epidemiology of drug use, the health and drug-related problems among people in prison; interventions available in prison; and drug-related adverse effects after prison release. For each component, the monitoring tools available and information gaps at European level on drugs and prison have been identified (Council of the European Union, 2013).

Existing information sources and findings from research, respectively, inform the first and last components, background information and drug situation (use and problems) of people after release from prison. The other components, drug epidemiology of people in prison and drug-related interventions, are informed by current data provided every year by European countries to the EMCDDA in the form of aggregated epidemiological data or annual national reports on the drugs and prison situation; and ad hoc EMCDDA tools, such as the European questionnaire on drug use among people in prison (EQDP) and the European facility survey questionnaire for the prison setting (EFSQ-P).

The EQDP is a model questionnaire for collecting comparable epidemiological data on drug use among people in prison in European countries. The EQDP is currently implemented, partially or the whole questionnaire, in ten ([2]) European countries; in addition, there are plans to extend implementation to other countries (see Chapter 2). The EFSQ-P is a model questionnaire that is used to collect information on drug-related services and interventions provided inside prison — it is an adaptation of the EMCDDA facility survey questionnaire used in the community. The EFSQ-P is in the final stages of development.

([2]) Czechia, Greece, Spain, Latvia, Lithuania, Poland, Portugal, Romania, Slovenia, Croatia.

About this publication

Sources of data and methodological considerations

This EMCDDA Insights report draws on a variety of sources including scientific and grey literature, official data, EMCDDA routine qualitative and quantitative monitoring data, national reports and data from European projects such as HA-REACT ([3]). The report also incorporates expert experiences and views collected at a technical meeting, 'Prison and drugs in Europe: future challenges', hosted by the EMCDDA in Lisbon in January 2019.

While the diversity of sources informing this publication serves in many respects to enrich and present the complexity of the situation in European prisons, there are also a number of limitations that need to be considered, and caution is required when interpreting results, especially from a comparative perspective.

Data on drug use and drug markets in prison are particularly scarce and, in some countries, limited to anecdotal information. There is also a paucity of data and scientific literature focusing on the health of people in prison. Consequently, the report is based on and triangulates a combination of different information sources, varying in content, method, language, target population and data quality. Furthermore, collection methods for epidemiological data on drugs and prison differ by country: some draw on routine registers, mainly containing information collected at admission to prison, while others draw on cross-sectional surveys. The cross-sectional surveys available vary in the sampling procedures used.

Comparability across countries is also hindered by national variations in prison systems, drug legislation and health and social care systems. To substantiate some information, findings from research conducted in non-European countries, particularly the United States, are used. Despite the availability and high quality of the research conducted in the United States, there are substantial differences between that country and European countries in their prison and healthcare systems, meaning that the findings are not necessarily transferable.

Finally, the scarcity of available data, allied to the lack of comparability of data from previous years, means that it is not possible to look at trends before 2010. These problems also limit what can be said about the present. Further research and efforts towards harmonising data collection across countries are needed to provide stronger evidence for interventions.

While acknowledging these limitations, this publication aims to provide an important and much needed insight on a topic and population that are both frequently neglected, despite meriting significant attention from policymakers in the fields of social care and public health.

Note on the use of data and Brexit

Despite the report being published in 2021, after the exit of the United Kingdom from the European Union, UK data, including epidemiological data for 2019 and information on drug-related interventions up to 2020, are included when available as they refer to the period pre-Brexit.

([3]) In developing this report, efforts were made to draw on research studies and data collection that were approved by appropriate ethical boards. However, as research ethics procedures vary greatly across countries it has not always been possible to check conformity with research ethics.

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2

CHAPTER 2

Drug use before, during and after imprisonment

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This chapter provides an overview of the epidemiology of drug use and drug-related problems among people in prison in Europe and provides information to support those engaged in needs assessment, service planning and treatment organisation. It first aims to help the reader to unpack the interconnections between prison and drug use, before presenting epidemiological data on the prevalence, behaviour and patterns of drug use among people in prison before, during and after incarceration.

The interconnection between prison and drugs

People in prison are substantially more likely to have used drugs, to use drugs regularly and to experience drug-related problems than their peers in the community. These are the findings of studies carried out across the world, despite significant differences between countries (Fazel et al., 2017).

Worldwide, it is estimated that of those in prison, 30 % of men and 51 % of women have a drug use disorder (Fazel et al., 2017). At the European level, studies have shown that between 30 % and 75 % of people with problematic drug use have been in prison at some time in their life (Ravndal and Amundsen, 2010). The high prevalence of drug use among people in prison reflects, and is reflected in, a number of social factors discussed below (de Andrade, 2018).

Drugs, drug use and prison experiences are interlinked in various ways, as illustrated in Figure 2.1.

FIGURE 2.1

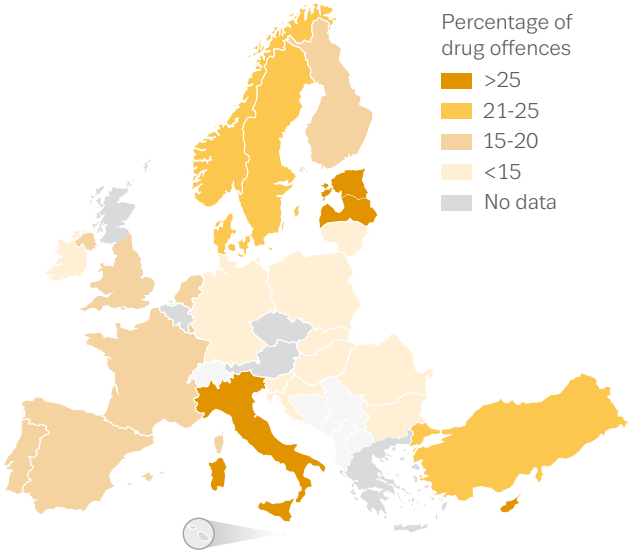
Interconnections between drugs, drug use and prison

First, many people are in prison for committing drug law offences, but these people do not necessarily have a history of drug use themselves; these offences include drug trafficking or drug production offences. In 2019, there were over 850 000 people in prison across Europe, of which 18 % received a final sentence for offences related to the use, possession or supply of illicit drugs (Aebi and Tiago, 2020).

The second interconnection between drugs and prison refers to people who use drugs and are in prison for offences related to their drug use, for example those committed to support or fund their dependence or crimes committed under the influence of drugs (Gaffney et al., 2010; Gjersing and Bretteville-Jensen, 2019). Although the nature of the drugs-crime link is likely to be complex and multifactorial, it is well documented that those dependent on illicit substances are responsible for a disproportionate number of crimes, particularly crimes committed for financial gain (acquisitive crimes). Involvement in income-generating crime may, to a large extent, reflect users' need to obtain funds to support their drug use (Pierce et al., 2015).

FIGURE 2.2

Share of prison population sentenced for drug offences in the EU Member States, Norway, Turkey and the United Kingdom, 31 January 2019



Source: Aebi and Tiago, 2020.

A third interconnection between drug use and prison refers to people who use drugs and are in prison, but not necessarily for offences related to their drug use. It reflects how offending and drug use may have common risk factors, such as social marginalisation, economic deprivation, school dropout, unemployment, childhood neglect and abuse, and parents with histories of substance use or mental health disorders (Stevens et al., 2005; EMCDDA, 2012; de Andrade, 2018).

A meta-analysis of studies on the relation between drugs and crime concluded that the likelihood of committing crimes of any type is up to eight times greater for people who use drugs than for those who do not; it also found a difference in the strength of the association between types of drugs. The odds of offending were highest among those using crack cocaine (about 6 times greater), followed by heroin (about 3 times greater) and cocaine (about 2.5 times greater). A statistical association between recreational drug use, including cannabis, and offending was also found, although it was substantially weaker (Goldstein, 1985; Bennett et al., 2008).

Drug use before imprisonment

The prevalence of substance use before imprisonment is generally high among the prison population worldwide, despite considerable variations between countries (Fazel et al., 2017). At the European level, a recent systematic review of studies conducted in 12 countries shows that the lifetime prevalence of illicit drug use on entry to prison was on average 61 %, with the variation between studies ranging from 30 % to 93 % (van de Baan et al., 2021). Cannabis was the substance most frequently reported, followed by cocaine, although some studies reported the highest prevalence of use for crack/cocaine.

EMCDDA and national monitoring data (based either on cross-sectional surveys or on routine data) from 15 European countries, reported between 2010 and 2019 (Figure 2.3), show a high prevalence of drug use in all countries, although differences exist. While it is useful to visualise national study results in a chart, methodological differences in data collection between countries are important and conclusions need to be drawn with caution (see Chapter 1).

The EMCDDA European questionnaire on drug use among people in prison

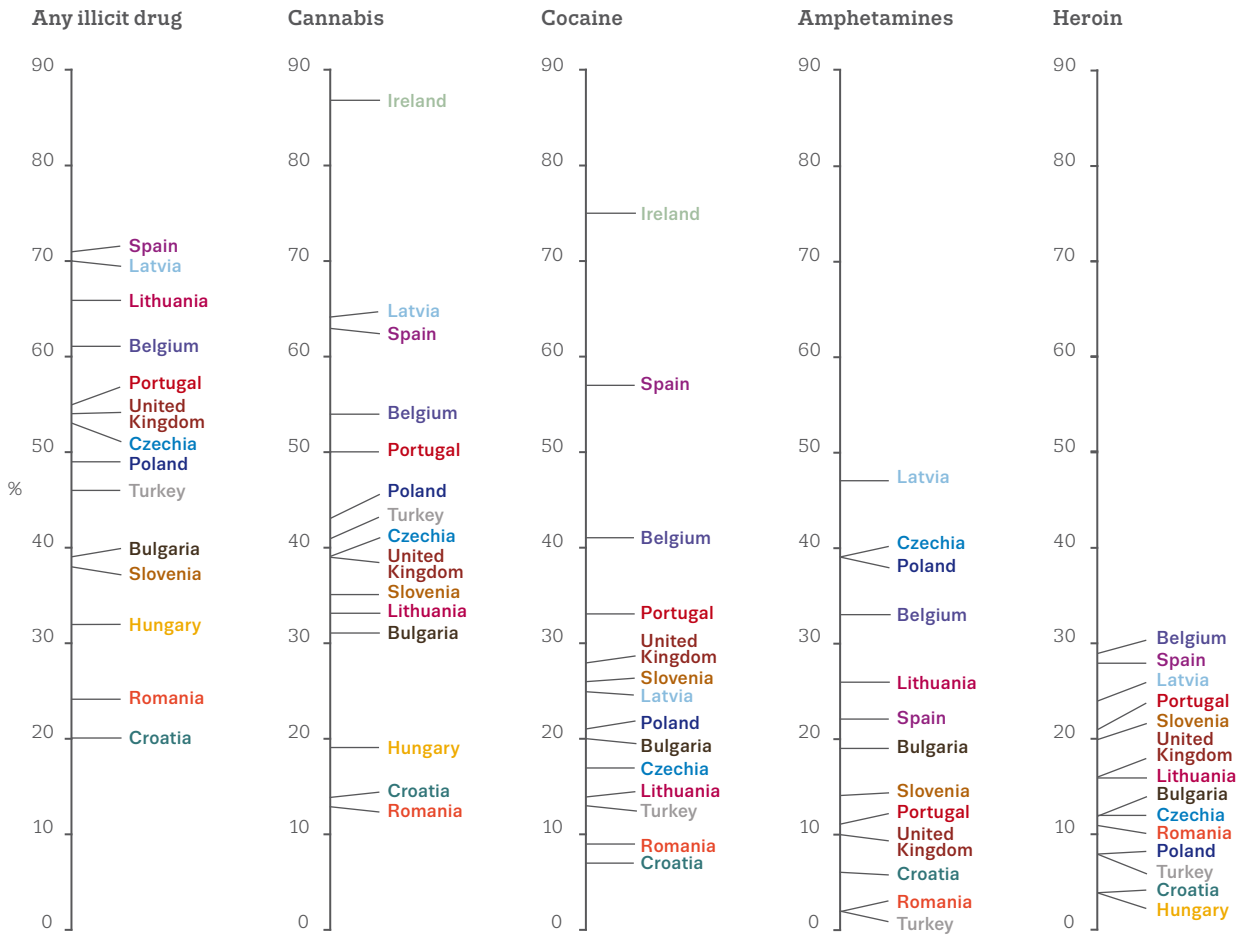
A model European questionnaire on drug use among people in prison (abbreviated as 'EQDP') was developed by the EMCDDA to provide a cross-country overview of drug use among the prison population. The EQDP includes ethical and methodological guidelines for carrying out research in prison.

The questionnaire includes 57 questions divided into five sections that focus on general information (sociodemographic, legal status); substance use outside and inside prison (time spans, frequency and age at first use); substance injecting and other health risks (injecting, sharing of needles and other injecting equipment, tattooing); health status of people in prison (HIV, hepatitis B virus, hepatitis C virus testing and status, mental health, overdose); and use of health and addiction services (opioid substitution treatment, harm reduction and other substance-related treatment) (Montanari et al., 2017).

An analysis of the prevalence of substance use among people in prison in six European countries using the EQDP concluded that, while limitations in data comparability remain and need to be addressed, the EQDP can provide comparable data that may support regional drug monitoring, facilitate the exchange of best practice and lessons learnt, and assist in the development of responses that meet current and future European challenges in this field.

FIGURE 2.3

Lifetime prevalence of illicit drug use among people in prison before imprisonment in 13 EU Member States, Turkey and the United Kingdom in 2019 or most recent data available



Data 2019 or most recent year available. Year of data collection varies by country.
Source: EMCDDA Statistical Bulletin

The lifetime prevalence of drug use before imprisonment ranges from 13 % in Romania to 87 % in Ireland for cannabis; 7 % in Croatia to 75 % in Ireland for cocaine; 2 % in Turkey and Romania to 47 % in Latvia for amphetamines; and 4 % in Hungary and Croatia to 29 % in Belgium for heroin.

Data on recent use of illicit substance before imprisonment show that last year prevalence of illicit substance use ranges from 17 % in Romania to 69 % in Ireland (for cannabis). Last month prevalence ranges from 1 % in Croatia to 54 % in the United Kingdom (Figure 2.4).

Despite differences between countries, people in prison report substantially higher rates of drug use prior to their imprisonment than are found among the general population (Figure 2.5).

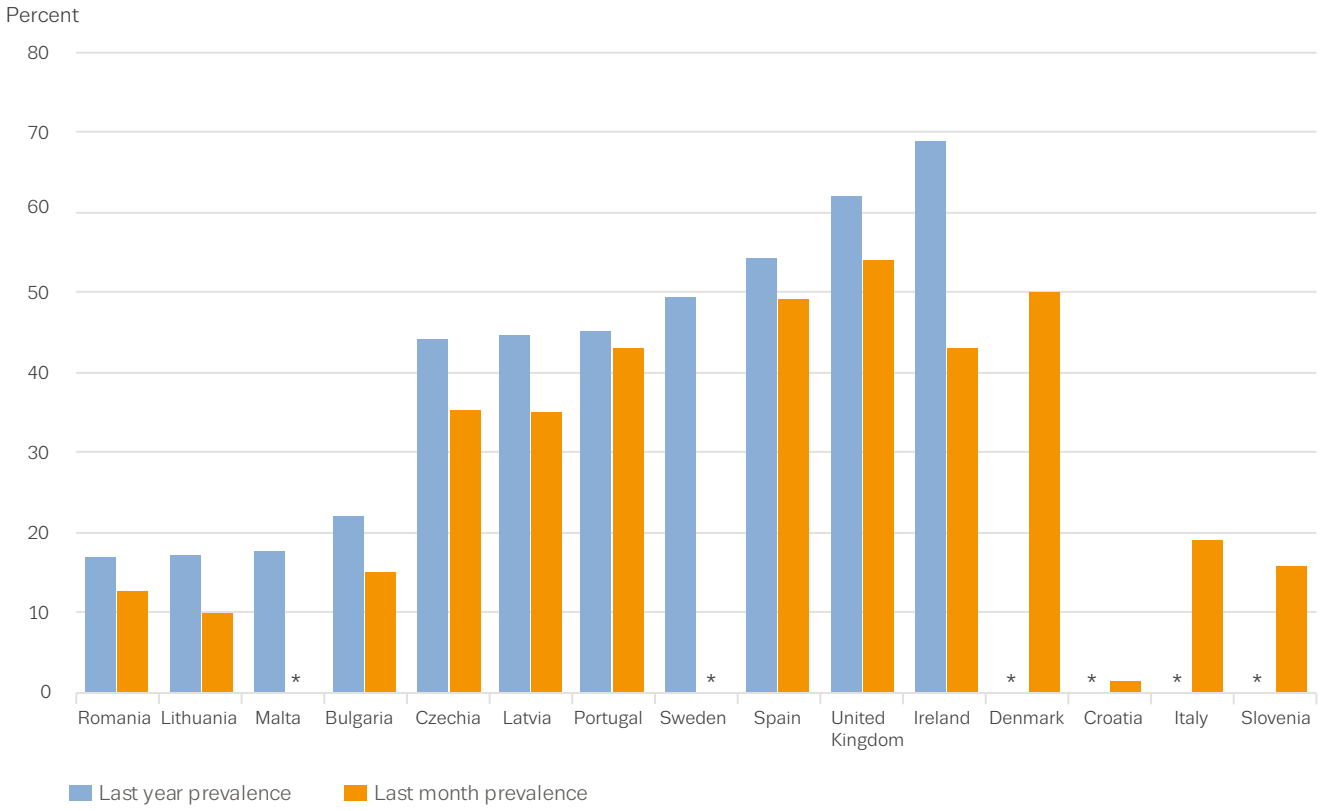
Figure 2.5 presents the results from a recent analysis using the EQDP in national surveys conducted in six countries between 2014 and 2018 (see box 'The EMCDDA European questionnaire on drug use among people in prison').

The lifetime prevalence of illicit drug use among male adults (aged 15-34 years) in prison before imprisonment and that in the general population were compared using ratios: a value higher than one indicates an excess of lifetime drug use for people living in prison compared with the general population. For example, a value of 3.8 for men in Portugal can be interpreted as meaning that men entering prison in Portugal are 3.8 times more likely to have used cannabis than those in the general population.

The excess of drug use is reported for all substances by comparing people in prison with the general population.

FIGURE 2.4

Last year and last month prevalence of any illicit drug use among people in prison before imprisonment in 14 EU Member States and the United Kingdom in 2019 or most recent data available



* An asterisk indicates no data available. Data for Ireland, Spain, Croatia and Lithuania refer to cannabis.
Year of data collection varies by country.
Source: EMCDDA Reitox monitoring data, 2010-2019.

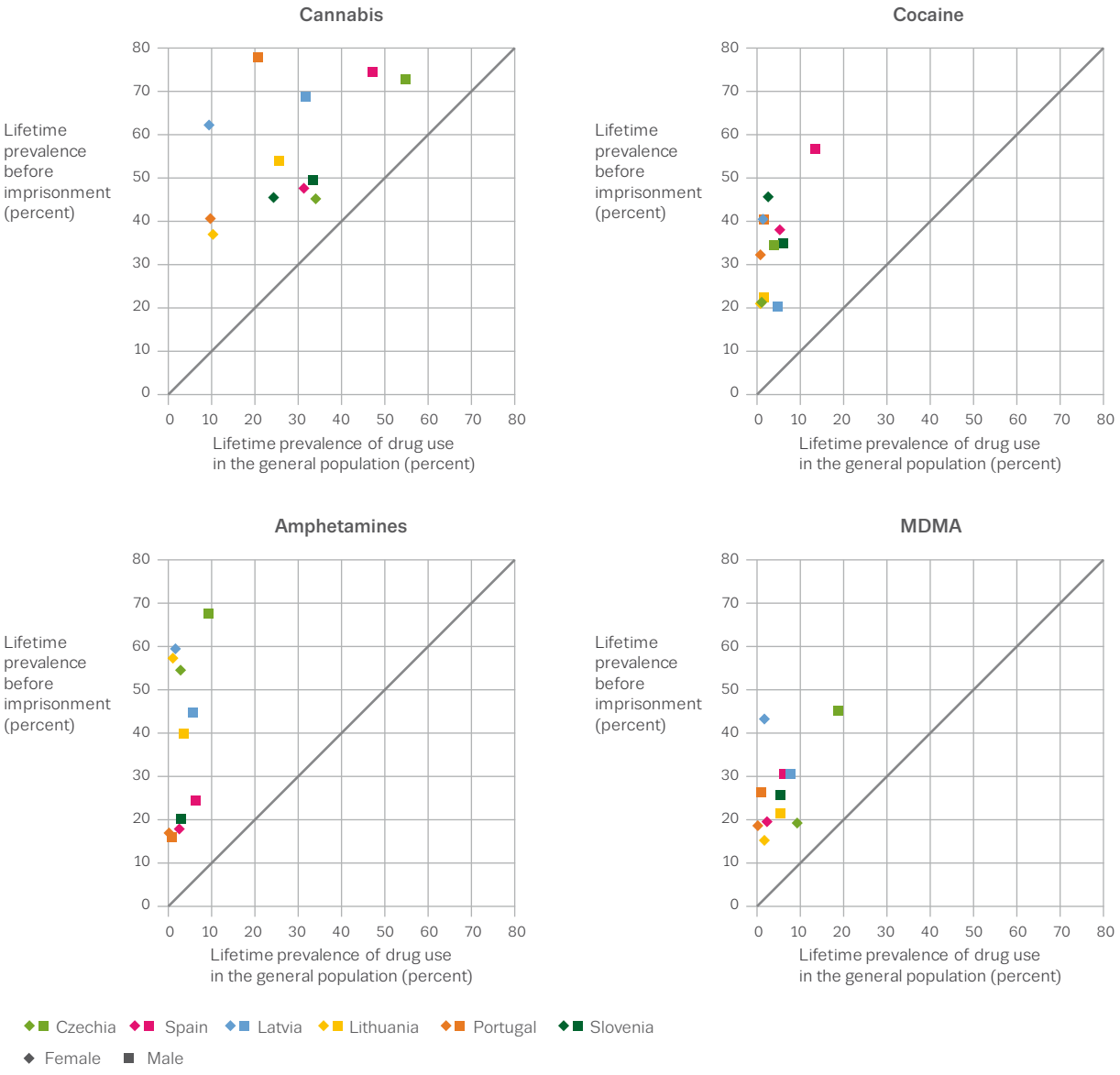
It was possible to calculate ratios for cannabis, cocaine, amphetamines and MDMA. For other substances the low prevalence in the general population did not allow any conclusive comparisons to be made.

In the six countries included in the analysis, the lowest excess was reported for cannabis and the highest for cocaine and amphetamines. The range of ratios was as follows: for cannabis, from 1.3 in Czechia to 3.8 in Portugal among men and from 1.3 in Czechia to 6.6 in Latvia among women; for powder cocaine, from 4.3 in Spain to 28.9 in Portugal among men and from 7.0 in Spain to 35.8 in Portugal among women; for amphetamines, from 3.9 in Spain to 18.0 in Portugal among men and from 7.1 in Spain to 84.5 in Portugal among women; and for MDMA, from 2.4 in Czechia to 21.8 in Portugal among men and from 1.9 in Czechia to 26.6 in Portugal among women.

Several factors may contribute to the wide variation between countries in the reported prevalence of drug use among people in prison before their imprisonment. These include both underlying societal reasons and methodological differences between countries. The first element includes differences in the substances most prevalent in the community, the characteristics of people with drug problems in the community and the consequences of disclosing drug use to prison authorities (Carpentier et al., 2012). Important differences exist across countries and surveys in the data collection methods, including sampling methods, mode of survey administration, types of questions asked, frequency of the surveys and other factors described in more detail in Chapter 1. Different estimates of drug use among people in prison across countries may also reflect variations in the use of alternative measures to imprisonment for drug offences: a lower number of people in prison for drug offences is expected in countries where alternatives to imprisonment are implemented. Different levels of priority used by law enforcement agencies and the courts in prosecuting drug use offences may also affect the drug use characteristics of people in prison.

FIGURE 2.5

Excess of drug use among people in prison compared with drug use in the general population in six EU Member States, 2014-2018



Source: EQDP 2019.

Drug use while in prison

Although prohibited, the consumption of illicit substances is widespread in prisons (see also Chapter 7). These substances are often more difficult and expensive to access in prison than in the community, which may contribute to a reduction in the number of people using drugs inside prison, and in the frequency of use (Carpentier et al., 2018). Many people stop using drugs when they enter prison or reduce their use, while others continue to use but may change their drug using patterns and behaviour. Others may start using drugs or switch substances once they are in prison. Overall, the prevalence of drug use among people in prison generally remains higher than in the general population in the community. Studies conducted between 2004 and 2013 suggest that in Europe between 20 % and 45 % of people with experience of incarceration have used drugs while in prison (Carpentier et al., 2018).

EMCDDA and national monitoring data on drug use inside prison provided by 11 countries ([4]) since 2010 report that in Europe the last year prevalence of drug use in prisons

([4]) Data from 11 countries since 2010: Belgium, Bulgaria, Czechia, Ireland, Latvia, Lithuania, Poland, Portugal, Romania, Slovenia, Scotland (United Kingdom).

is generally highest for cannabis (0.5-67 %), followed by heroin (1-29 %), cocaine (0.1-20 %) and amphetamines (1-8 %). Again, methodological limitations should be considered and careful interpretation of these data is necessary.

Data on drug use during imprisonment in six European countries using the EQDP (see box 'The EMCDDA European questionnaire on drug use among people in prison') show that the prevalence of ever-use of drugs during imprisonment is generally lower than the lifetime prevalence of drug use before imprisonment, with the highest levels reported for cannabis. Variations in prevalence exist between countries and substances used.

While several studies point to an overall reduction in drug use for many people while in prison (Young et al., 2018), some report having initiated their drug use while incarcerated. A recent French study reported a substantial reduction in substance use inside prison: the highest reduction in prevalence was reported for alcohol use, followed by illicit drugs, and the highest increase, including the initiation of consumption inside prison, was observed for prescribed drugs and medications consumed outside of a medical context (Rousselet et al., 2019). A 2002 study found that about 15 % of people in prison in England and Wales reported having started to use heroin, cocaine or both inside prison, compared with 9 % for crack cocaine, 6 % for cannabis and 2 % for amphetamines (Boys et al., 2002). Research conducted in a Lithuanian women's prison found that 4 % of those in prison who use drugs started to use drugs while in prison (Narkauskaite et al., 2010).

Some people may start using additional drugs when they are in prison. A Belgian study found that more than one third of people in prison who use drugs started to use an additional drug during detention, with heroin the most reported new substance (Todts et al., 2008).

Prison wastewater studies have been used to complement prison survey data. Wastewater-based drug epidemiology allows researchers to estimate the quantity of drugs consumed by a community by measuring the levels of illicit drugs and their metabolites excreted in urine and detectable in the sewerage system. Two prison wastewater studies have been conducted in Europe, one in a Spanish prison and the other in three French prisons. Both studies report high levels of drug residues in prison wastewater. The French study estimated an average daily consumption of 0.5-3 cannabis joints per person, and between 90 mg and 282 mg of pure cocaine per 1 000 individuals, depending on the sampling site. Issues to consider when interpreting wastewater data in prison include sampling methods, degradation of target molecules, molecule quantification, data on metabolism and estimation of the number of individual users (Postigo et al., 2011; Néfau et al., 2017).

During imprisonment patterns of drug use may also change as people adapt to the prison setting. People who use drugs may use new substances when their drug of choice is not available in prison, or they may change to a substance that is more easily used in the prison setting (e.g. easier to conceal, with a sedating rather stimulating effect) (Singleton, 2008). People in prison tend to prefer to use drugs that are less likely to be detected by drug testing, either because they are detectable in the blood for a shorter time (e.g. heroin, rather than cannabis) or because they are generally not included in routine urine drug testing (e.g. synthetic cannabinoids) (Stöver and Weilandt, 2007; EMCDDA, 2018). In general, central nervous system depressant substances, including hypnotics and sedatives, are preferred because their effects are also easy to hide and their consequences easier to manage in the confined setting of a prison (Bullock, 2003). The need to increase the efficiency of the drug, due to its scarcity in prison, may also encourage some people who use drugs to adopt more harmful patterns of drug use, such as injecting, while in prison (Niveau and Ritter, 2008).

Use of new psychoactive substances in prison

The use of new psychoactive substances became an emerging issue in prisons in a number of European countries in 2014-2015, although the use of synthetic cannabinoids was first picked up in England and Wales in 2010-2011 (User Voice, 2016). The initial undetectability of new psychoactive substances in routine urine testing is thought to be a main reason for their increased use in prison, particularly for synthetic cannabinoids.

An exploratory study conducted in European countries in 2017 found signs of new psychoactive substance use in prison in 22 countries (Figure 2.6). Synthetic cannabinoids were the new psychoactive substances most often reported. Other new psychoactive substances commonly used in prison were synthetic cathinones, synthetic opioids and new benzodiazepines (EMCDDA, 2018).

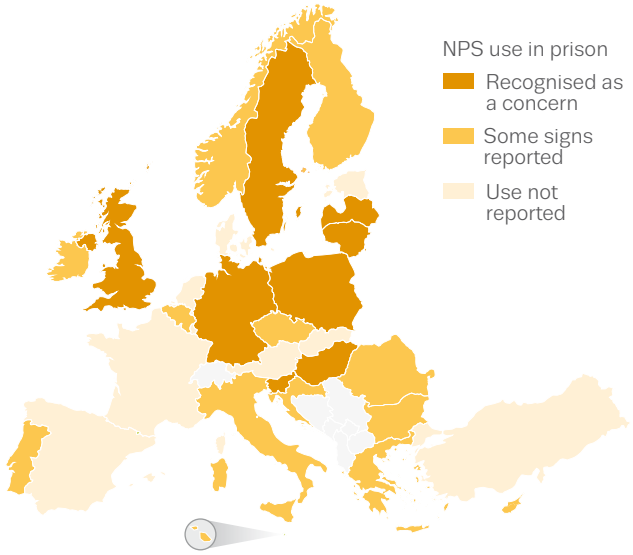
The prevalence of synthetic cannabinoid use in prison in 15 European countries with available data ranged from 2 % in Portugal to 30 % in some prisons in England (EMCDDA, 2018). Random urine testing conducted in German prisons and forensic hospitals in 2018 resulted in 38 %

of positive tests for new psychoactive substances, mainly synthetic cannabinoids, a decrease compared with 60 % in 2015 (EMCDDA, 2018). In the other countries reporting trend information on new psychoactive substance use in prison, no clear changes have been reported since their appearance in the drug market in prison.

A wide range of physical and mental health harms (such as psychosis, disorientation, suicidal ideation, aggressiveness to others or self-harm) has been associated with acute intoxication by, and chronic consumption of, synthetic cannabinoids (EMCDDA, 2018). Nevertheless, there are a number of reasons why people who use drugs in prison may choose to use these substances. Synthetic cannabinoids are easily accessible and most of them are not detectable by urine analysis, because they are chemically diverse and difficult to identify analytically, and they are often more potent and cheaper than cannabis, producing intoxication at lower doses for a lower cost. They can also be supplied in smaller quantities that are easier (than cannabis) to conceal and to take into prison (see Chapter 7). In English prisons the use of synthetic cannabinoids was associated with an increased number of health problems experienced by people in prison and a disruption in the functioning of the prison system (EMCDDA, 2018).

FIGURE 2.6

Reported use of new psychoactive substances (NPS) in prison, 2018



Source: EMCDDA, 2018.

Injecting drug use before and during imprisonment

Data on the prevalence of injecting drug use in prison are particularly difficult to collect, in part because of the greater stigma attached to injection practices. Data are available in only a few countries and different methodologies have been used for obtaining them. Therefore, caution is required when making international comparisons of injecting drug use in prison.

The lifetime prevalence of injecting drug use before imprisonment is substantially higher among people in prison than in the general population in most countries (Azbel and Altice, 2018). Survey data collected in 10 European countries since 2010 show that between 6 % of people in prison in Poland and 48 % in Lithuania reported having injected drugs before imprisonment (Figure 2.7). These proportions are substantially higher than the estimates of prevalence of drug injection in the European adult population (0.3 %).

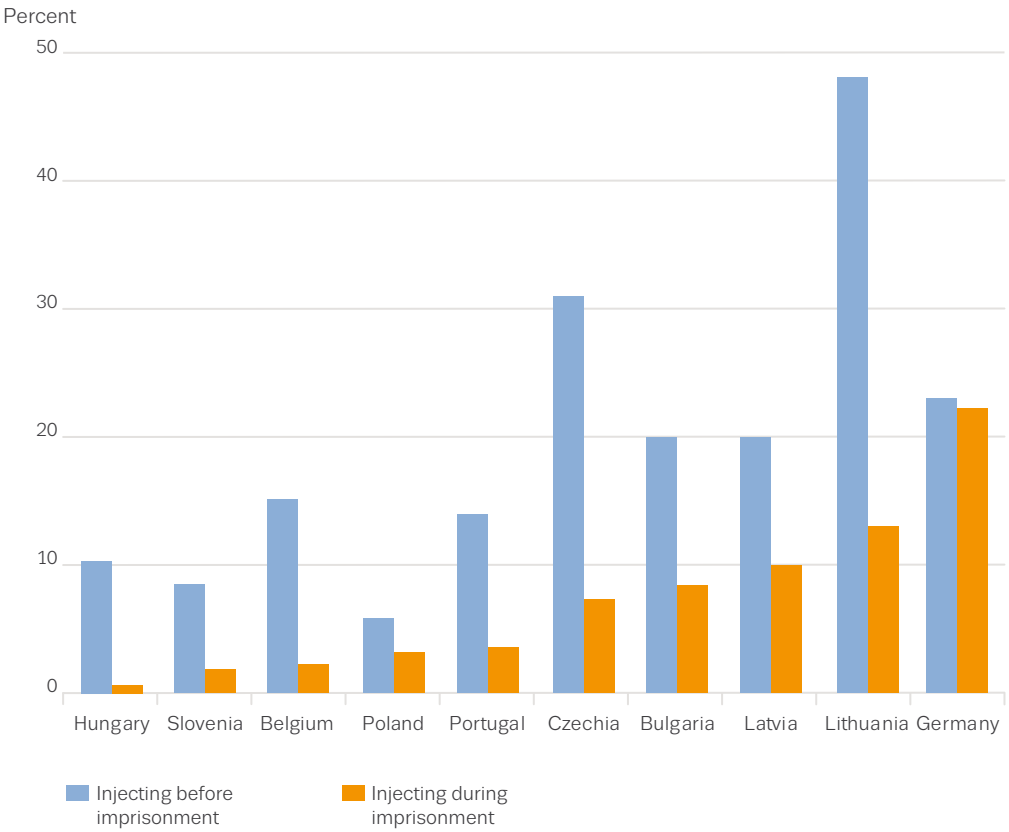
The high prevalence of injecting drug use is confirmed by studies of people who use drugs with prison experience (Ravndal and Amundsen, 2010). A recent study, drawing on data collected in various community settings in 17 European countries between 2006 and 2015, found that between 20 % and 80 % of people who inject drugs have had prison experience (Stone et al., 2018).

Qualitative studies suggest that some people inject drugs inside prison because injection maximises the psychoactive effects of expensive drugs that are in short supply, or because they are initiated to injection by others in prison (Gore et al., 1995; Peña-Orellana et al., 2011; EMCDDA, 2012). Based on surveys conducted between 2010 and 2019 in ten European countries, the prevalence of injecting illicit drugs during imprisonment ranges from 0.7 % in Hungary to 22.2 % in Germany (Figure 2.7).

Sterile equipment for safe injection is rarely available inside prison. People in prison may reuse syringes (Treloar et al., 2016) or use syringes that are crafted from items available in prison.

There are few data available on the sharing of injection equipment in prison. EMCDDA and national monitoring data from four countries indicate that, of the people who inject drugs in prison, the proportion who share injection equipment while in prison may range from 27 % in Luxembourg to 65 % in Czechia. These are likely to be underestimates, considering that in most countries there is

FIGURE 2.7
Lifetime prevalence of injecting drug use before and during imprisonment in 10 EU Member States, 2010-2019



Source: EMCDDA Reitox monitoring data, 2019.

no freely available clean injecting equipment in prison (see Chapter 5).

Drug use after release from prison

Understanding drug use after release from prison is important from a public health and a criminal justice perspective. Yet, there are not many data available, and the few existing studies mostly focus on the United States and Australia. Although these studies provide relevant information, their findings are not necessarily applicable to the European context.

Again, the findings of the existing studies vary greatly because of differences in the methods used, recruitment and actual prevalence. Most studies report some reduction in drug use, including injecting, in the first year after release from prison, although in some studies no change or even an increase in drug use is reported (Larney et al., 2018).

There is, however, some evidence of an association between recent incarceration and risky injecting drug use immediately after release from prison, involving an increased risk of sharing injecting equipment (Larney et al., 2018). The period following release from prison is also important because of the high risk of fatal overdose (see Chapter 3).

While addiction plays an important role, other reasons for continuing drug use and drug injection after release from prison may include poor social support, exposure to and availability of drugs, influence of drug-using peers, difficulties in social reintegration, barriers to accessing drug treatment and inadequate treatment offers (Binswanger et al., 2007).

Conclusions

The prevalence of drug use and drug-related problems among people in prison is high in Europe and worldwide, and people who are or have been in prison are more likely

than their peers in the community to experience drug-related problems. Offending and drug use share a number of risk factors that, although not easily disentangled, reveal how drug use is often just one of many vulnerabilities among people in prison.

There are differences between countries in drug use prevalence and behaviour that reflect variations in the national prevalence of drug use, prison systems, methods of data collection, social and cultural contexts, legal frameworks and national policies, among other factors. Nevertheless, all of the above underlines the importance of developing evidence-based interventions that address drug use and the related healthcare needs among people in prison.

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3

CHAPTER 3

Drug-related health problems of people in prison

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This chapter focuses on the general health of people who are in prison and use or have used drugs. Particular attention is devoted to infectious diseases and psychiatric comorbidity. The mortality of people who use drugs in prison is also addressed, both during imprisonment and in the period following release. Particular attention is paid to the needs of women with drug problems who are in prison.

Whether they use drugs or not, people in prison have generally poorer physical and mental health and social well-being than their peers in the community. People in prison suffer from higher rates of acute and chronic physical and mental illness and have greater levels of disability and lower life expectancy than their peers in the community. They report high rates of communicable and non-communicable diseases, including cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. They experience disproportionally high levels of sexual health problems, suicide attempts, self-harm and mental health and substance use problems, including alcohol, tobacco and illicit drug use disorders (Barry et al., 2010; Plugge et al., 2014).

People in prison also have lower survival rates than the overall population outside prison. According to a US study on cancer in people in prison, the median survival time from diagnosis of people living in prison was 21 months, which compared with 54 months for those living in the community (Mathew et al., 2005). Health problems in people in prison mirror and most often magnify those of people in the wider community, in part because there is a significant overlap of risk factors for poor health and imprisonment but also because prison conditions can negatively affect already impaired health.

Overcrowding is a significant challenge in prison today. According to the latest official survey statistics across Europe, 12 countries report a median occupancy rate of over 100 % (Aebi and Tiago, 2020). Overcrowding increases stress and tension in people in prison, as well as in prison staff, and the poor and unsanitary conditions often resulting from overcrowding adversely affect the health of people in prison (Møller et al., 2007; Rouillon et al., 2004).

Specific groups of people in prison may have health and social needs that should be taken into account. The particular needs of groups such as women, foreign nationals, lesbian, gay, bisexual and transgender (LGBT) people and older people, may be exacerbated when combined with drug-related problems (see Chapter 7).

Overall, health conditions directly or indirectly related to drug use in people in prison include infectious diseases, psychiatric comorbidity, and mortality after release from prison.

Infectious diseases among people who inject drugs

On entering prison, people who use drugs have higher rates of infections, such as HIV, hepatitis B virus (HBV), hepatitis C virus (HCV), syphilis, gonorrhoea, chlamydia and tuberculosis (TB) than the general population (Dolan et al., 2016). The increased prevalence of blood-borne virus infections among people in prison compared with those in the community is, in large part, associated with the over-representation of people who inject drugs; a large proportion of people in prison have contracted infectious diseases through drug injection and the sharing of injecting equipment outside prison (Azbel and Altice, 2018).

People in prison may also contract infectious diseases during incarceration. Prisons are high-risk settings for the transmission of blood-borne viruses because, in addition to higher rates of blood-borne viruses among the prison population, people in prison may be more vulnerable to risk behaviours such as sharing needles and syringes in the absence of ready access to clean injecting equipment;

having unprotected sex in the absence of access to condoms; and undergoing unsafe tattoo practices.

These risks are further increased by prison overcrowding; the coexistence of many people in a small space may facilitate sharing of syringes and unsafe sex and may increase stress and related aggressiveness with an increased risk of violent contact and transmission. This may be combined with suboptimal health and social services provision (Jürgens et al., 2011; Garcia-Guerrero and Marco 2012).

Worldwide the prevalence of HIV, HCV and HBV and co-infections is higher among people in prison than in the general population. A recent study estimated that, on any given day, of the 11 million people in prison across the world in 2014, 3.8 % were affected by HIV, 15.1 % by HCV, 4.8 % by HBV and 2.8 % by active TB (Dolan et al., 2016).

The excess prevalence of infectious diseases compared with the general population is higher among those with a history of drug injection and among women in European prisons (Tarján et al., 2019). Nevertheless, large differences in the prevalence of infectious diseases among people in prison are reported between countries because of variations in prevalence of infectious diseases in the general population; prevalence of high-risk drug use and injecting drug use; how prison health is organised; and methods used and recruitment for measuring the prevalence of infectious diseases.

Prevalence of HIV in people in prison

A history of incarceration and substance use disorders are risk factors for HIV transmission. A meta-analysis of studies conducted in 196 countries between 2005 and 2015 estimated that the prevalence of HIV-positive people in prison ranged from 1 % to 16 % of the global prison population, depending on the region. Among people who inject drugs, the prevalence is higher, up to almost 20 % in some countries (Dolan et al., 2016).

In Europe, HIV prevalence among all people in prison in 24 countries reporting data ranges from 0 % in the Netherlands to 13 % of people in prison in Estonia. A number of countries primarily in eastern Europe, including Estonia (13 %) and Latvia (7 %) report high prevalence rates of HIV. This is likely to be due to a number of factors, including a high prevalence of people who inject drugs in the community as well as the limited coverage and capacity of harm reduction programmes. Among the group of people in prison with a drug use history, the HIV prevalence in 12 countries that report data ranges from close to 0 % in Czechia to 34 % in Spain (Figure 3.1) (Tarján et al., 2019).

Prevalence of HCV and HBV in people in prison

At the global level, rates of HCV infection in people in prison are high, ranging from 1 % to 21 %, and exceeding 10 % in most world regions (Dolan et al., 2016). Among people in prison who inject drugs worldwide, HCV prevalence ranges from 8 % to 95 %. A systematic review of 128 studies on the incidence and prevalence of HCV in prison from 39 countries worldwide reported a pooled estimate of 64 % HCV prevalence among people in prison with an injecting drug use history (Larney et al., 2014).

Data from 19 countries for the years 2009-2017 show a prevalence of HCV among people in prison ranging from less than 1 % in Slovenia to 42 % in Finland (Figure 3.1); among people who are in prison and have a drug use history, the prevalence reported in 12 countries ranges from 3 % in Slovenia to 97 % in Sweden (Tarján et al., 2019).

Rates of HBV in prison populations are lower than those for other infectious diseases. Worldwide the prevalence of HBV infection in people in prison is estimated to range from 1 % to 24 % of all people in prison depending on the country (Dolan et al., 2016). In Europe, HBV prevalence among all people in prison reported from 15 countries ranges from close to 0 % in Slovakia and Slovenia to 16 % in Czechia. Among people with a drug use history, HBV prevalence reported by nine countries ranges from close to 0 % in Hungary to 81 % in Sweden (Figure 3.1) (Tarján et al., 2019).

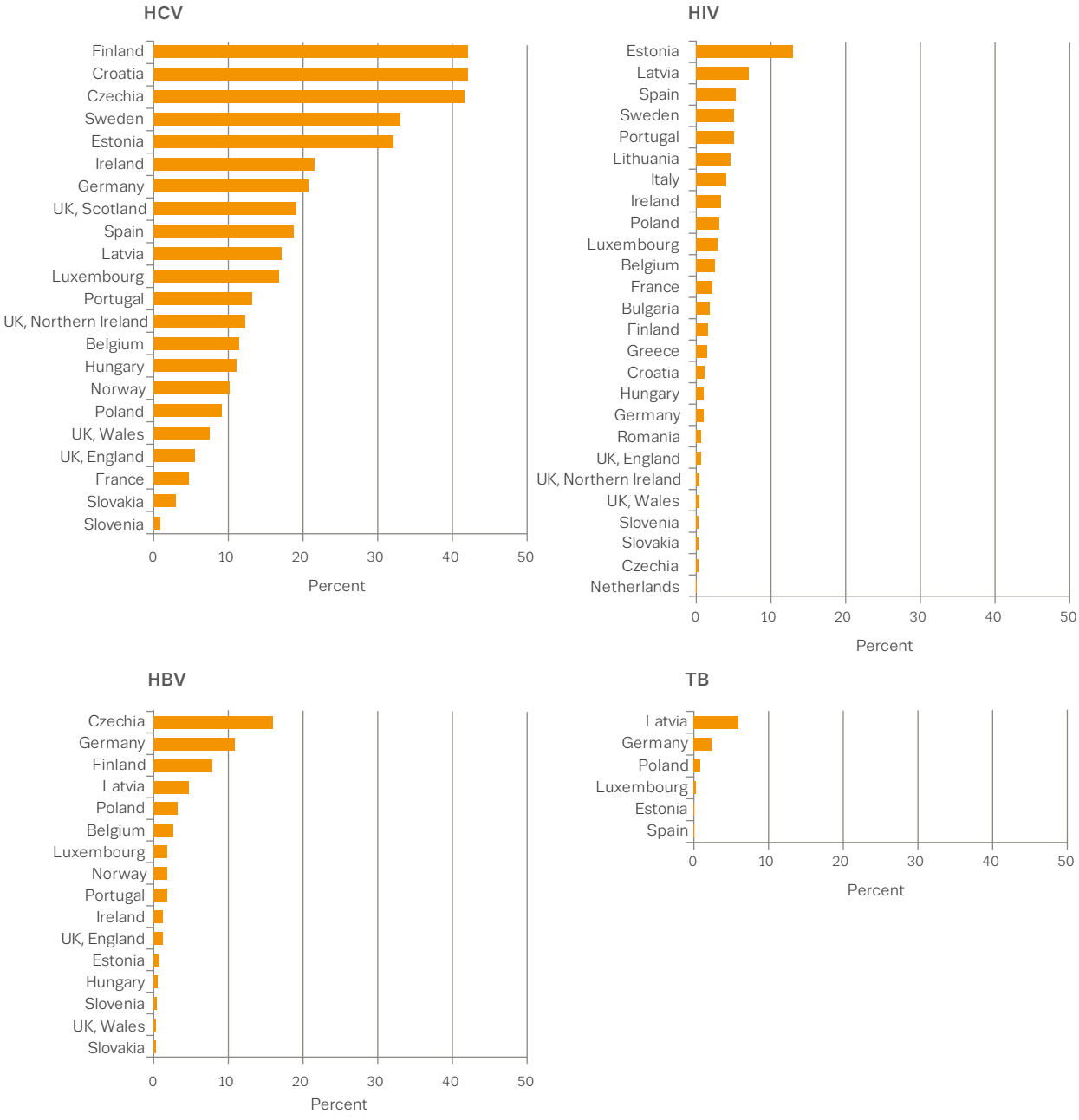
Prevalence of tuberculosis in people in prison

The prevalence of TB in people in prison far exceeds that reported in the general population (Aerts et al., 2006; Dolan et al., 2016). Worldwide it is estimated to range from 2 % to 8%, but data are more limited than for other infectious diseases. In Europe, data on TB prevalence (active and latent) is limited. This is an important gap in knowledge, as it has been estimated that the risk of acquiring TB is at least 10 times higher among people in prison than in the general population (Baussano et al., 2010).

The available data indicate that the prevalence of TB varies between 0.8 % and 6 % of all people in prison for the six countries reporting on it (Figure 3.1). Only Luxembourg reported data specific to the prevalence of TB among people who inject drugs in prison (0 %) (Tarján et al., 2019).

FIGURE 3.1

Prevalence of HIV, HCV, HBV and TB among the overall prison population in the EU Member States, Norway and the United Kingdom, 2009-2017



Source: Tarján et al., 2019.

Incidence of infectious diseases in people in prison

While many people who inject drugs in prison may have contracted infectious diseases in the community before imprisonment, some contract them during incarceration. Prison settings play a role in the high prevalence of infectious diseases among the people who pass through the system.

Prisons are high-risk environments for the transmission of blood-borne viruses, with contextual factors such as overcrowding, poor physical infrastructures, limited access to injecting equipment, lack of condoms and lack of interventions for the prevention and treatment of infectious diseases potentially representing aggravating factors (Enggist et al., 2014; Silbernagl et al., 2018).

However, there are few studies on the incidence of infectious diseases in prison. Spain reports a 0.03 % incidence of HIV-positive cases in people in prison in 2014, reflecting the low incidence in the general population, but such data are not available for other European countries.

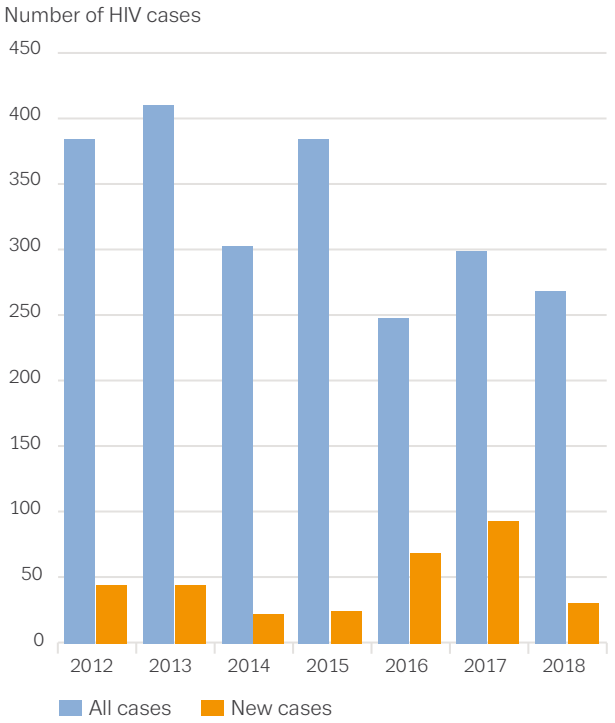
Based on a systematic review, there is evidence of an association between recent incarceration and increased HIV and HCV acquisition among people who inject drugs (Stone et al., 2018). Several recent modelling analyses have also suggested that the incarceration of people who inject drugs could be a contributor to the transmission of infectious diseases after release from prison. The risk is elevated in the initial period following release, which is also related to the increased risk of injection during this time. HIV and HCV prevalence among people who inject drugs was found to be significantly higher among individuals with a history of incarceration in most of the 17 countries included in a 2018 study (Stone et al., 2018). Other studies in Canada and Australia support these findings, confirming the relevant public health impact of infectious diseases contracted in the initial period after release from prison (Milloy et al., 2009; Milloy et al., 2011; Winter et al., 2016; Stone et al., 2018; Winter and Hellard, 2018).

In 2016 and 2017, a high rate of new HIV infections in prison was reported in Lithuania, with more than 20 % of the total number of HIV-positive people in prison having contracted the infection inside prison (Figure 3.2). Most new HIV cases were among people serving their sentences in the same prison, which is organised in large cells hosting numerous people, thus increasing exposure to infectious diseases.

Despite of the range of health risks associated with incarceration, prisons can be settings for providing services to populations otherwise considered 'hard to reach' by community services. In particular, they may offer important prevention and treatment interventions to address infectious diseases and other drug-related problems.

FIGURE 3.2

HIV incidence and prevalence in people in prison, Lithuania, 2012-2018



Source: 2018 Lithuanian national monitoring data.

Psychiatric comorbidity

Psychiatric comorbidity can be defined as the co-occurrence in the same person of two or more mental health disorders, usually a mental health disorder and a substance use disorder. Comorbidity particularly affects vulnerable groups, including prison populations (EMCDDA, 2015).

Psychosis, personality disorders, anxiety and depression are all mental health disorders more common among people in prison than in the general population (Fazel and Baillargeon, 2011). A systematic review of 62 surveys of 23 000 people in prison in 12 countries found that up to 65 % of people in prison had a mental health disorder (EMCDDA, 2015).

The prevalence of comorbidity of mental health and substance use disorders in the prison population is reported to be high. In Italy, the prevalence of comorbidity among the overall male prison population was estimated at 21 % (Piselli et al., 2009). In one region of Spain, psychiatric comorbidity was reported in approximately 85 % of people in prison with substance use disorders (Casares-López et al., 2011). In Croatia, a review study (Palijan et al., 2009) reported figures ranging from 50 % to 80 % among violent offenders. Another study, conducted in England on a representative sample of 469 women and men in prison, found that a significant proportion of prisoners screened positive for two or more disorders (Tyler et al., 2019).

The most common mental health disorders among people who use drugs include personality disorders often associated with problem drug use (Arroyo and Ortega, 2009), such as antisocial personality disorder, major depression and psychotic illnesses such as schizophrenia,

schizophreniform disorder, maniac episodes and delusional disorder. Neurodevelopmental disorders, such as attention deficit-hyperactivity disorder (ADHD), autism spectrum disorder (ASD) and intellectual disability, are suspected to be over-represented in prison (Young et al., 2018).

In Austria, a study conducted among people in prison undergoing methadone treatment reported a high prevalence of ADHD, which was associated with starting substance use at an early age. Fifty per cent of the study participants screened positive for childhood ADHD and 17 % for adult ADHD. People in prison with ADHD symptom status were significantly younger at first substance misuse, reported more drug overdoses, longer duration of cocaine and prescribed medication misuse and more in- and outpatient treatments. Early and effective treatment, in addition to OST could yield reduced concomitant consumption and higher treatment retention (Silbernagl et al., 2019a).

People with comorbid disorders have an elevated risk of suicide, one of the leading causes of premature death among people in prison (Silbernagl et al., 2019b; Tyler et al., 2019; Widinghoff et al., 2019). People in prison with dual diagnosis display a risk of reoffending beyond that of people in prison with solely substance use disorders or only a psychiatric disorder (Baillargeon et al., 2009), and the incidence of injury (including self-harm) is particularly elevated among people with dual diagnosis after release from prison (Young et al., 2018).

Table 3.1 presents key data from European epidemiological studies on mental health and substance use disorders from prison population studies published between 2006 and 2019.

When incarcerated and left untreated, the symptoms of individuals suffering from comorbid disorders may lead to more negative consequences inside prison (Silbernagl et al., 2019b), and it is of central importance to identify the substance use and mental health needs of people in prison and provide them with the most appropriate evidence-based treatment. Integrated treatment of substance use disorders and comorbidities during imprisonment may not only improve people's mental health but also reduce re-incarceration risk and thus the costs to society at large (Silbernagl et al., 2019b).

Mortality during imprisonment and after release

The mortality rate among the prison population in Europe is generally high (Aebi and Tiago, 2020). A study on mortality, conducted in France on 230 people who died in prison in 2011, found that the death rate among people in prison aged 20-39 years is double the rate in the general population of the same age (Désesquelles et al., 2018).

Suicide is the leading cause of death in people while incarcerated, accounting for around one third of all prison deaths (Enggist et al., 2014). In Europe, the risk of suicide among people in prison (10.5 per 10 000 prison population) is seven times that of the general population (EU average of 1.5 per 10 000 population) (Rabe, 2012).

A considerable proportion of people who commit suicide in prison have drug-related problems. The French study reports that 78 % of the deaths were due to a violent cause, 11 % of which were attributed to intentional or accidental drug overdose or intoxication (Désesquelles et al., 2018). Meta-analyses suggest that drug-related problems are a risk factor for suicide both in prison (Fazel and Baillargeon, 2011) and among people who use drugs in the community (Darke and Ross, 2002).

In England, a study investigating 172 prison suicides in 1999-2000 found that self-poisoning (overdose) was reported in 3 % of cases, and it was not among the most common ways of committing suicide. In this study people who were dependent on drugs and committed suicide did so early in their sentence and were twice as likely to do so in the first week in prison when compared with people in prison without drug problems.

Since 2013, the appearance of new psychoactive substances in prison in several European countries has been associated with deaths. Despite difficulties in determining the cause, deaths in prison directly or indirectly related to the use of new psychoactive substances have been reported in Germany, Latvia, Poland and the United Kingdom. In England and Wales, between June 2013 and September 2016, there were 79 cases in which the person was known or strongly suspected to have taken new psychoactive substances before death or where use of such substances was a key issue during imprisonment. Of these, 56 were self-inflicted (EMCDDA, 2018).

The ageing trend in the general and opioid-using population in the community is also reflected in the prison population. Although there are currently few data on this, ageing brings with it physical vulnerabilities that can exacerbate existing

TABLE 3.1

Prevalence of mental health and substance use disorders in the prison population in studies published between 2006 and 2019 in the EU Member States, Iceland, Norway and the United Kingdom

Authors	Country	Sample size	Assessment tools	Reference population	Type of disorder	Prevalence (%)
Silbernagl et al., 2019b	Austria	133	Structured/ standardised interview (screening of ADHD and ASPD	People in prison in OST (only current disorders with a prevalence over 15 % reported)	Generalised anxiety disorders ADHD Major depression Suicide risk Antisocial personality disorder	16 17 26 39 57
EMCDDA, 2015	Estonia	870 (2009) 877 (2010)	N/A	People in prison	Drug use-related mental or behavioural disorders	Both 24.5
Lukasiewicz et al., 2009	France	998	MINI-5 plus TCI plus senior interview	People in prison	If SUD, DD comorbidity If Axis-I psychiatric disorder, SUD	80 33
Einarsson et al., 2009	Iceland	90	MINI and SAPAS (personality); childhood ADHD symptoms: with the Wender-Utah rating scale and current ADHD with DSM-IV	People in prison (men)	ADHD and psychiatric conditions	50
Piselli et al., 2009	Italy	302 Perugia 2005-2006	Semi-structured interview	People in prison (men)	Psychiatric disorder, including SUD Comorbidity	54.3 20.9
Casares-López et al., 2011	Spain	152	ASI MINI-6	People in prison with SUDs	Dual diagnosis Antisocial personality disorder Depression Anxiety	85 65.5 35.9 25.5
Sørland and Kjelsberg, 2009	Norway	40	K-SADS	Teenage boys remanded to prison	Mental disorder SUD	90 75
Colins et al., 2011	Belgium	232	DISC	Detained adolescents		Recidivism greater if SUD
Palijan et al., 2009	Croatia	Review		Violent offenders	Comorbidity	50-80
van Horn et al., 2012	Netherlands	148		Violent offenders	Violence and DD Axis-I or Axis-II comorbidity 50 violent offenders with DD	34
Elonheimo et al., 2007	Finland	2 712 men	National registers	Young male offenders	SUD and/or psychiatric disorders	59 if > 5 crimes
Harsch et al., 2006	Germany	47 + 30 + 26	SCID and SCID II, GAF, BSS	Forensic/prison (sexual offenders)	Mental disorders	80 (compares different forensic subpopulations)
Chang et al., 2015	Sweden	47 326		People in prison (women and men)	Any psychiatric disorder (men) Any psychiatric disorder (women)	42 64
Widinghoff et al., 2019	Sweden	270	SCID I and II	People in prison Violent offenders	Substance use Gambling Affective disorder ADHD Conduct disorder Anxiety disorder Antisocial personality disorder	85 16 54 44 79 52 64
Young et al., 2018	United Kingdom (Scotland)	392	Standardised screening tools for the assessment of neurodevelopmental disorders	Dual diagnosis in adults released from prison	Neurodevelopmental disorders (ADHD, ASD, ID)	25

TABLE 3.1 *continued*

Authors	Country	Sample size	Assessment tools	Reference population	Type of disorder	Prevalence (%)
Tyler et al., 2019	United Kingdom (England)	469	Self-report standardised screening tools (MCMI-III, SDS, AUDIT-PC, SBQR, SCOFF)	People in prison (only disorders with over 15 % reported)	Any personality disorder Anxiety Mood disorder Drug dependence Risk of suicidal behaviours Problematic alcohol use PTSD Psychotic disorder Eating disorder	55 36 25 35 27 56 16 18 20

ADHD, attention deficit-hyperactivity disorder; ASD, autism spectrum disorder; ASI, Addiction Severity Index; ASPD, antisocial personality disorder; BSS, Beck Scale for Suicide Ideation; DD, dual diagnosis; DISC, Dominance, Influence, Steadiness and Compliance; DSM-IV, Diagnostic and Statistical Manual of Mental Disorders; GAF, Global Assessment of Functioning; ID, intellectual disability; K-SADS, Kiddie Schedule for Affective Disorders and Schizophrenia; N/A, not applicable; OST, opioid substitution treatment; PTSD, post-traumatic stress disorder; SAPAS, Standardised Assessment of Personality; SUD, substance use disorder; AUDIT: (Alcohol Use Disorders Identification Test-(Piccinelli) Consumption); MCM III (Millon Clinical Multiaxial Inventory, 3rd edition); MINI (Mini-International Neuropsychiatric Interview); SCID (Structured Clinical Interview for DSM Disorders; SBQR (Suicide Behaviors Questionnaire-Revised); SCOFF (Sick, Control, One, Fat, Food); SDS (self-directed support).

poor health conditions and the negative consequences of drug-related problems highly prevalent in the prison population (Enggist et al., 2014).

Mortality after release from prison

The risk of mortality increases markedly when people are released from prison; this is so for all causes of death but in particular for deaths resulting from drug overdose (Bukten et al., 2017; Brummer et al., 2018). The risk of death by overdose is extremely high in the first week after release (and to a lesser extent in the second week) but remains elevated and, compared with people with no prison experience, remains elevated for life (Binswanger et al., 2007) (see Figure 3.3). The risk of non-fatal overdose in the initial period after release from prison is also reported to be high. Non-fatal overdose can cause serious morbidity and predicts future fatal overdose (Winter et al., 2015).

Among people in prison with a history of problem opioid use, the increased risk of overdose is primarily related to relapse to use of opioids, in particular heroin, after leaving prison (Darke and Hall, 2003). Their markedly reduced opioid tolerance after a period of abstinence is a major factor contributing to the elevated risk, as illustrated in a Scottish study on drug-related deaths among people discharged from hospital (Merrall et al., 2013).

Studies consistently confirm this elevated risk of drug-related death in the first weeks after release from prison. A review of deaths occurring after release from prison in Europe, Australia and the United States found that 6 out of 10 deaths occurring in the first 12 weeks after release from prison were drug-related (Merrall et al., 2010). Similar results are reported by a study conducted in England and Wales (Farrell and Marsden, 2008). An Irish study of 105 deaths among people using drugs with history of imprisonment between 1998 and 2005 found that 28 % of overdose deaths after prison release occurred in the first week from the release from prison and another 18 % in the first month (Lyons et al., 2010).

In Lithuania, a combined analysis of data on mortality and imprisonment found that, of 83 drug-related deaths reported in 2017, 10 % took place within 6 months of release from prison. The drug-related deaths mainly occurred in men, with a mean age of 35 years, living in the capital city and taking heroin and other opioids, including potent opioids such as fentanyl and carfentanil. However, the risk of a fatal overdose in the first week after release is higher for women than men (Farrell and Marsden, 2008).

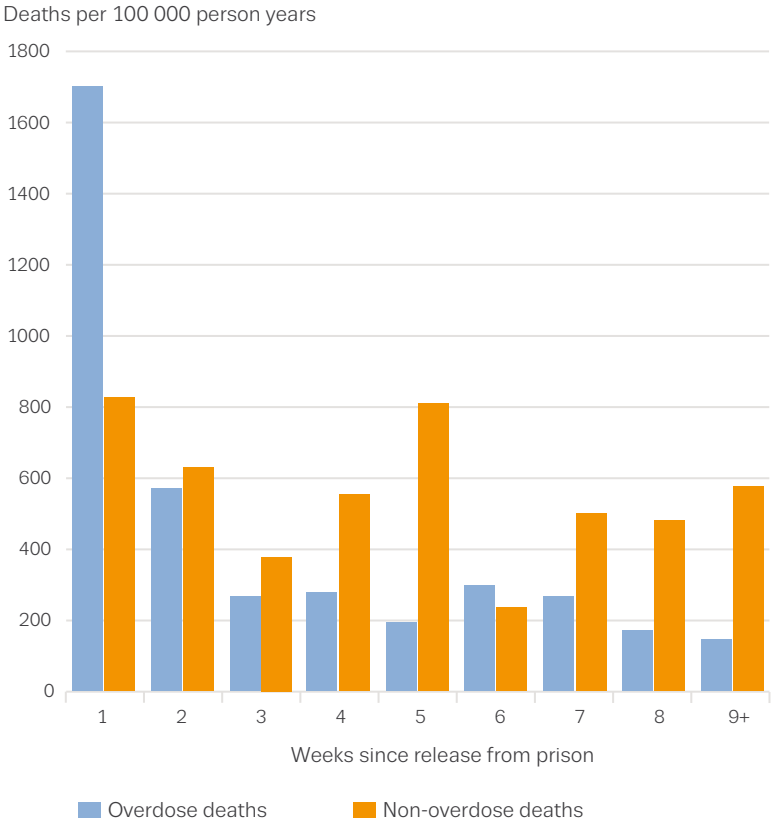
Health needs of women who are in prison and use drugs

Women in prison constitute a small proportion of prison populations worldwide, usually somewhere between 3 % and 8 % of the total (van den Bergh et al., 2014; Aebi and Tiago, 2020). Imprisonment rates for women vary significantly across the globe: 3.2 per 100 000 women inhabitants in Africa, 6.2 in Asia, 11.3 in Oceania, and up to 31.4 in the Americas.

Globally, the number of women and girls in prison increased by more than 50 % between 2000 and 2017, compared with a 20 % increase in men (Walmsley, 2017). In Europe the proportion of women in prison has remained

FIGURE 3.3

Mortality rate, by week since release, for overdose and non-overdose causes of death observed in a US study



Source: Binswanger et al., 2013.

stable over the last few years, but overall growth in the prison population has resulted in an increase of the number of women in prison (Tournier, 2001; Aebi and Tiago, 2020).

At 31 January 2019 there were 41 114 women incarcerated in the 27 EU Member States, Norway, Turkey and the United Kingdom, representing around 5 % of the total prison population. Numbers and percentages vary by country. The highest rates per 100 000 female population were reported in Czechia, Latvia, Hungary, Lithuania, Slovakia and Turkey (Aebi and Tiago, 2020) (Figure 3.4).

Foreign nationals make up a significant share (16 %) of women in prison in Europe, reaching over 20 % in 12 countries, eight of which report a higher proportion of foreign nationals among women in prison than among men in prison (Aebi and Tiago, 2020).

The lower figures for women in prison compared with men reflect the fact that women tend to commit fewer and different types of crimes (Braithwaite, 1989; Gottfredson and Hirschi, 1990; Akers, 2009; Robert, 2009), and, according to some studies, some judges give more lenient sentences to women because of the high social cost of imprisoning them, as women provide the majority of unpaid household labour and child care (Steffensmeier et al., 1993; Cho and Tasca, 2019).

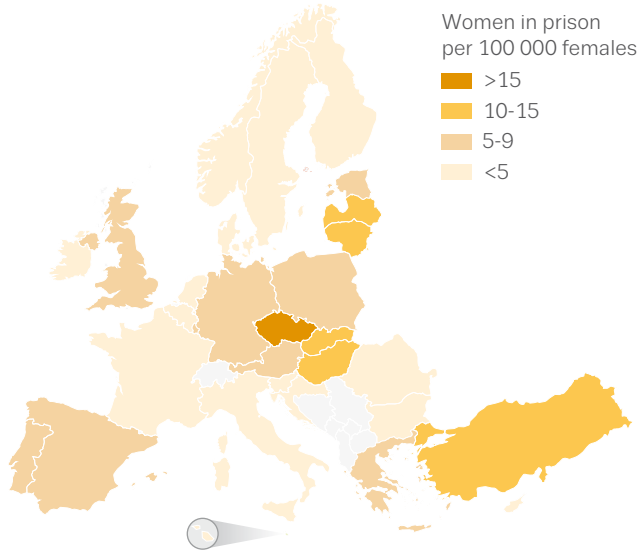
Women also tend to be sentenced for different crimes than men (Aebi and Tiago, 2020). When they go to prison, women are mainly sentenced for non-violent crimes, including drug law offences (Borrill, 2003; Fazel et al., 2017).

Worldwide the proportion of women in prison for drug-related offences is higher than the proportion of men in prison for such offences (UNODC, 2018). In Europe, out of all women in prison the proportion of those incarcerated for drug-related offences varies considerably, from 5 % in Bulgaria to approximately 25 % in Denmark, Finland and Sweden, 33 % in Italy and 40 % in Spain (UNODC, 2018). Women are reported to play less dominant roles in drug trafficking, often occupying the lowest level of the drug supply chain. There are, however, recent indications of involvement of women in higher levels of supply chains (UNODC, 2018).

Some women are imprisoned for crimes indirectly related to drug use, such as robbery and theft committed to support their drug use (Gjersing and Bretteville-Jensen,

FIGURE 3.4

Women in prison in EU Member States, Norway, Turkey and the United Kingdom at 31 January 2019, per 100 000 female inhabitants aged 15-64 years



Source: Aebi and Tiago, 2020.

2019), while others with a history of drug use are sentenced for crimes unrelated to drug use or supply (Aebi and Tiago, 2020).

Women in prison have complex social and health profiles and have often received scarce or inadequate healthcare before imprisonment (van den Bergh et al., 2014). Many have experienced multiple traumas since childhood in contexts of social disadvantage (Fuentes, 2014). A substantial proportion have experienced physical, sexual and emotional abuse before being imprisoned, and many suffer from severe personality and behavioural disorders and/or have a history of self-harm, abuse and abandonment.

Compared with men in prison and with women in the general population, women in prison have high rates of mental health problems, including post-traumatic stress disorders, depression and self-harm (Tyler et al., 2019). They also report high rates of sexually transmitted and other infectious diseases, reproductive health problems (e.g. cervical cancer), dental problems, obesity and other non-communicable diseases (Plugge et al., 2009). Substance use problems are also frequently reported among women in prison, although for many that is a secondary disorder following a previous mental health problem (EMCDDA, 2015), and it often represents a way to alleviate and/or self-medicate past traumas of violence and abuse (Friestad et al., 2014: Braitman and Kelley, 2016).

A recent analysis of the available data on drug use at reception to prison found that drug use disorders are highly prevalent among people in prison and are more prevalent among women than men (Fazel et al., 2017). Based on data from 10 countries (Australia, Austria, England, France, Germany, Iceland, Ireland, the Netherlands, New Zealand, United States), the study reported a pooled estimate of drug use disorders in the year before entering prison of 51 % among women and 30 % among men. In a systematic review with data from 12 European countries, the rates of lifetime prevalence of any illicit drug use before prison were estimated at 62 % in women in prison and 41 % in men in prison (van de Baan, 2018).

A recent analysis of data from the EQDP from six European countries compares lifetime prevalence of drug use before prison among men and women in prison and in the community: it shows a higher excess of drug use prevalence among women than men (see Chapter 2).

The reasons for this higher excess in the prevalence of drug use among women in prison are likely to be related to the high proportion of women going to prison for drug-related offences (although not all of them are using drugs) and the high level of vulnerability of women who commit crimes and are sentenced to prison (van den Bergh et al., 2014; Wattanaporn and Holtfreter, 2014). Overall, few women are sentenced to prison but those who are imprisoned often present complex social and (physical and mental) health profiles.

The patterns of drug use among incarcerated women are similar to those reported by men in prison. The majority of women in prison have used cannabis in their lifetimes. Prevalence is also high for other illicit substance use, such as heroin (from 19 % in Spain to 49 % in Latvia), cocaine (from 21 % in Lithuania and Czechia to 41 % in Latvia), and amphetamines (from 17 % in Portugal to 64 % in Slovenia) (data from the 2019 EQDP).

Women in prison report higher rates of infectious diseases, including HIV/AIDS, hepatitis B, hepatitis C and syphilis, than men in prison and the general female population, as they are more likely to participate in risky behaviours, including sex work and injecting drug use. Many cases of sexually transmitted infection remain undetected because they are asymptomatic. Some of these infections in women may have serious long-term health consequences such as ectopic pregnancy, infertility and chronic pelvic pain. Sexually transmitted diseases are a major factor in the spread of HIV, as they enhance transmission and diminish the body's general resistance (Dolan et al., 2016).

Compared with women in the general population and with men who use drugs in prison, women with prison experience show higher rates of suicide both inside and

outside prison and report higher rates of self-harm inside prison, regardless of whether or not they are using drugs (Farrell and Marsden, 2008; Douglas et al., 2009).

The impact of imprisonment on women may be especially damaging. As reported in a British briefing, women in prison are far more likely than men to be primary carers of children, who are often placed in foster care when women are imprisoned (Prison Reform Trust, 2015). Once in prison, women tend to be more isolated than men and receive fewer visits (Prison Reform Trust, 2015). Because there are fewer prison institutions for women, they may serve their sentences away from their area of residence, hindering family visits and contributing to their isolation. This lack of facilities may also result in overcrowding (Observatoire International de Prisons — Section Française, 2019).

Women who use drugs and have been in prison also are at a high risk of drug-related death after release from prison. A study on drug-related mortality after release from prison in the United States found that among people who had been in prison the overdose mortality rate was more than 50 % higher among women than men (236 v. 154 per 100 000 person-years) (Binswanger et al., 2013).

Although it is also reported for men, studies suggest that, on leaving prison, women with drug-related problems by comparison suffer more serious long-term social consequences of their prison experiences (INCB, 2018). Women are less likely than men to receive support in their return to the family or the community, and they may be socially isolated and socially and economically disadvantaged, losing their accommodation and facing additional difficulties when searching for work (Douglas et al., 2009).

Conclusions

While prison conditions can negatively affect the already impaired health of people who use drugs, prisons are also settings that may facilitate the provision of health services; it is often in prison that people, who are otherwise considered hard to reach by health services in the community, are offered prevention, treatment and harm reduction services to address their drug use and drug-related problems. Interventions in prison may also play a key role upon release in facilitating the continuation of treatment and in preventing drug-related deaths. These interventions (see Chapters 4 and 5) may have a significant impact on morbidity, mortality, public health and recidivism, which not only benefits people in prison but also delivers a community dividend.

A better understanding of the full extent and complexity of drug use among people in prison is needed in order to inform the development of evidence-based policies and interventions that address the needs of people in prison. Yet, the scarcity of studies and data on the subject poses a challenge, which is accentuated when discussing data across countries.

There is a need to improve the epidemiological data on drug-related health problems among people in prison in order to ensure the availability of reliable and comparable data across countries. Examples of improvements in this field include the methodological framework for monitoring drugs and prison in Europe and the development of the EQDP. Further studies and data collection initiatives in this area would greatly contribute to the body of evidence on the needs of the prison population; this is key for the sound planning and provision of services that may affect the health and social conditions of people in prison.

In addition, a better understanding of the intersections of the risk factors associated with drug use and with criminal behaviour may allow for the development of services and interventions that address multiple risk behaviours.

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4

CHAPTER 4

Health and social responses to drug problems in prison

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A variety of interventions are implemented in European prisons to address drug-related problems. Their coverage and availability vary across countries and across different prisons within the same country. This chapter maps the organisation and implementation of health and social responses to drug problems in European prisons. It provides a general overview of various policy and institutional frameworks for prison health and outlines the availability and coverage of drug-related interventions in prisons in the EU Member States, Norway, Turkey and the United Kingdom.

Key issues for the organisation of drug services in prison are outlined, and guiding principles for carrying out drug-related interventions in prison are introduced, followed by an overview of governance and a description of the available guidance on drug-related interventions in prison.

The second part of the chapter maps the interventions in the reporting countries. The mapping exercise is structured along the phases of imprisonment — entry, stay and release — and the types of interventions are discussed. For each group of interventions, practices from three countries are outlined. These examples illustrate the interventions currently used in some European prisons, and they do not necessarily represent evidence-based or best practice in the field.

This chapter is based on qualitative information provided by the reporting countries through the EMCDDA's network of national focal points and the findings of the HA-REACT project. Caution should be paid when interpreting the data on available interventions, as these mainly originate from expert opinion; no standard data collection instruments on drug-related interventions in prison were available when drafting this report (see Chapter 1).

As a complement to the information provided here, Chapter 5 will look in more detail at specific harm reduction interventions, and Chapter 6 provides an in-depth review of the evidence of effectiveness for many of the interventions presented here.

Guiding principles for the provision and organisation of drug services in prison

Two internationally recognised principles provide the basis for providing health treatment for people in prison: equivalence of care and continuity of care.

The principle of equivalence of care was highlighted in the 2015 Nelson Mandela Rules (United Nations General Assembly, 2015), which state that 'prisoners should enjoy the same standards of health care that are available in the community, and should have access to necessary health-care services free of charge without discrimination on the grounds of their legal status' (Rule 24).

The majority of people in prison come from vulnerable population groups, and so the mere provision of health services equivalent to those available to the general population is unlikely to lead to the same health status. It may therefore be necessary to implement additional and targeted interventions for people in prison in order to achieve equivalence of health outcomes.

The principle of continuity of care focuses on maintaining healthcare provision for people in prison as they move in and out of custody. The emphasis is on the importance of maintaining clinical and treatment interventions when entering prison, during the stay and on leaving prison (Enggist et al., 2014; Abbott et al., 2017).

Nelson Mandela Rule 24 addresses this principle in stating that 'Health-care services should be organised in close relationship to the general public health administration and in a way that ensures continuity of treatment and care, including for HIV, tuberculosis and other infectious diseases, as well as for drug dependence'.

Accordingly, healthcare services need to aim for health promotion and rehabilitation (Rule 25); to be

interdisciplinary (Rule 25); to support the independence of prison doctors and the application of the same ethical professional principles followed outside prison (Rule 32); to conduct a health assessment on entry to prison (Rule 30); to be available in the event of emergency, or when people are sick or request treatment (Rule 31); to ensure confidentiality (Rule 26); to address the needs of pregnant women and children (Rules 28, 29); and to comply with and safeguard the duty of health professionals to report to the prison authorities any case of mistreatment, torture or harm due to imprisonment and harmful prison conditions (Rules 33, 34, 35).

The clinical independence of healthcare staff is a requirement for the implementation of equivalence and continuity of care and is essential to providing good healthcare, and ensuring healthcare professionalism, in correctional settings. The Nelson Mandela Rules address the independence of healthcare professionals in Rules 27 and 31.

Clinical independence can be defined as the 'assurance that individual physicians have the freedom to exercise their professional judgment in the care and treatment of their patients without undue influence by outside parties or individuals' (World Medical Association, 2018). This is of particular importance in correctional and detention settings, as the relationship between healthcare providers and patients is not based on free will (Pont et al., 2018).

Healthcare staff may, however, face several obstacles when providing health services in prison. They may be obliged to report to correctional — rather than healthcare — leadership or may be asked to contribute to custodial measures, certifying, for instance, that a particular person is medically fit for punishment or solitary confinement. In addition, patients may have limited capacity to exercise self-determination, such as informed consent or dissent, and cannot choose the physician that attends to their health. Overall, prison settings are often characterised by a general paucity of knowledge and awareness of healthcare ethics (Pont et al., 2018).

International and European guidance for the provision of healthcare in prison

The provision of healthcare in prison has been the subject of much international and European guidance, starting in 1948 with the United Nations (UN) Declaration of Human Rights and its Standard Minimum Rules for the Treatment of Prisoners (SMR), adopted in 1955 and last revised in 2015 as the Nelson Mandela Rules. Other important international guidance includes the International Covenant on Civil and Political Rights, the UN Convention Against Torture, the UN Sustainable Development Goals (particularly SDG 16), and the many specialist recommendations and guidance developed by the World Medical Association, UN and World Health Organization.

While many of these rules are not legally binding on states, they have played an important role in shaping national and international legislation.

Within the European context, the European Prison Rules, the reports and standards of the European Committee for the Prevention of Torture (CPT), and the European Convention of Human Rights (ECHR) along with the European Court of Human Rights (ECtHR) play a significant role in guiding and improving prison standards and in protecting the rights of people in prison (van Zyl Smit and Snacken, 2009). The European Prison Rules were modelled on the UN SMR for the treatment of prisoners and devote an entire section to health in the revised 2006 version, signalling the importance of improving the standards of healthcare provision in prison (Easton, 2011). The CPT has an important preventive function and through its reports and visits it sets clear limits on what is acceptable treatment of people in prison. It also places great relevance on health matters (van Zyl Smit and Snacken, 2009). The ECtHR deals with individual complaints, has an adjudicative function, and its findings are binding (see the case *Wenner* v. *Germany*, described in Chapter 5) (Easton, 2011).

At the country level, national prevention mechanisms that monitor and ensure respect for the human rights of people deprived of liberty operate in countries that ratified the Optional Protocol to the Convention against Torture (United Nations General Assembly, 2003). In addition, a number of other parties including non-governmental organisations, such as the International Red Cross or Harm Reduction International, play an important role in this field. Together these mechanisms and organisations provide a key source of case law and principles that govern the practice of imprisonment in Europe (Easton, 2011).

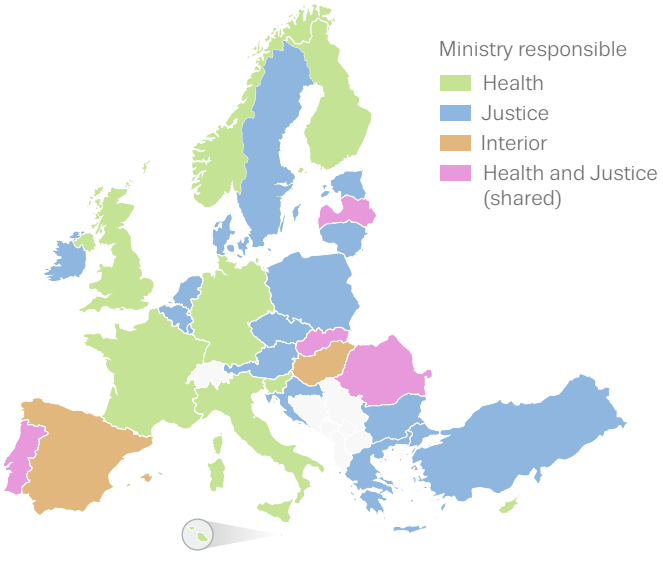
Governance of prison healthcare services

The governance of prison health services in Europe, for the most part, rests with the ministry managing prison services overall, typically the ministry of justice or interior, whereby decisions about prison health are taken by national prison administrations or specialised executive agencies depending on these ministries. In 2019, the governance of healthcare in prison rested with the justice ministry in 16 countries, with the health ministry in 8 and with the interior ministry in two, and in the remaining four countries it is shared between the justice and health ministries (Figure 4.1). In two autonomous regions of Spain (Catalonia and Basque country), unlike the rest of the country, the responsibility for prison health is under the health department.

Various international organisations including the WHO recommend that the management and coordination of all relevant agencies and resources contributing to the health and well-being of people in prison is a whole-of-government responsibility, whereby prison health services are fully independent of prison administrations and yet liaise effectively with them. In addition, they recommend that health ministries provide and are accountable for healthcare services in prisons and advocate for healthy prison conditions (WHO Europe, 2013).

FIGURE 4.1

Government institutions responsible for the governance of healthcare in prison in the EU Member States, Norway, Turkey and the United Kingdom, 2019



Source: EMCDDA and national monitoring data; WHO Health in Prisons European Database.

These recommendations have prompted some countries in Europe, and elsewhere, to transfer the responsibility for healthcare in prison to the health ministry. The move aims to provide adequate healthcare by ensuring good governance of healthcare in prison. Several benefits may be expected from a change in the governance of prison healthcare, such as improved resources, the inclusion of people in prison in public health initiatives, the development of prison health indicators, and the integration of prison health data into national health statistics (WHO Europe, 2013).

It remains to be assessed through evaluation, however, whether these measures can and have contributed to improving the health of people in prison and how structural changes can be improved.

The transfer of responsibility to health ministries aims to better integrate prison health services into the community and improve the continuity of care provided to people in prison (Enggist et al., 2014). Where this has occurred, the move was often prompted by the recognition that prison health problems needed to be tackled more effectively and that improved care for people in prison required easier access to medical specialists. In the United Kingdom, the move has increased the importance given to treatment for drug use inside prison. Finland and the United Kingdom (Leaman et al., 2016) have conducted evaluations of the transfers (WHO Europe, 2019). In Sweden, the responsibility for health in prison is under the justice ministry, but the health ministry supervises the service provision. Latvia, Portugal, Romania and Slovakia have developed inter-ministry collaborations between the ministries of justice and health to ensure an approach to healthcare in prison that considers the needs of both prison security and management and prison healthcare. In Spain, healthcare in prison is under the responsibility of the interior ministry except in the Basque Country and Catalonia. In most of the remaining countries the governance of healthcare in prison falls under either the justice or interior ministries.

In countries where health in prison is not under the responsibility of the ministry of health, drug treatment is mainly provided by staff employed by the prison administration, forming multidisciplinary teams often including medical doctors, psychologists, psychiatrists and social workers. Prison administrations may collaborate with external, community-based treatment providers, public health services or non-governmental organisations (NGOs) to ensure the delivery of drug treatment services to people in prison. Personnel from public services are often allocated to work alongside prison staff, and external providers may 'reach in' and work independently inside the prison.

Such partnerships with external organisations are reported in most countries. Involving external service providers who establish client contacts during imprisonment may also support continuity of care after release. Germany and Slovenia report that external service providers, including NGOs, are to a large extent involved in the provision of harm reduction interventions in prison (Tarján et al., 2019).

Policy documents addressing drugs and prison

Across Europe responses to drug-related problems in prisons are addressed in each country by one or more drug, health or prison-specific policy document, such as prison strategies, action plans and implementation plans. Common policy objectives include improving access to health and social care in prison for people with drug-related problems, reducing health-related problems among people in prison, supporting their reintegration into society and reducing recidivism.

A number of countries have developed guidelines for the implementation of responses to drug-related problems in prison. Furthermore, many countries in Europe define specific elements of drug-related service provision in prisons — such as harm reduction interventions, testing and treatment of infectious diseases and interventions preparing for release — in written strategies or guidelines (Tarján et al., 2019).

European guidance on interventions targeting drug use in prison

Various institutions and agencies are engaged in prison healthcare, and a number of guidelines on interventions targeting drug use in prison are available. This section identifies some of the most important for the European context.

In 2013, the UNODC identified a minimum package for HIV prevention in prison settings. This document is important when tackling drug use in prison, as it addresses specific harm reduction interventions such as prison-based needle and syringe programmes, as well as OST and other drug dependence treatments (UNODC et al., 2013).

More specific to Europe, the WHO Regional Office for Europe (WHO Europe) released its comprehensive reports on prison health, covering a wide range of aspects such as communicable and chronic diseases, mental health and problematic substance use in prison settings (Enggist et al.,

National strategic documents on drugs in prison in three European countries

France
In June 2019, the Ministry of Solidarity and Health and the Ministry of Justice adopted a roadmap targeting 28 priority actions for the period 2019-2021, based on the 'health/prison' strategic actions plan on health policy for inmates adopted in 2017. Among these actions, seven concern treatment for inmates with addictions, including monitoring, harm reduction, continuity of care after release and community healthcare.

Cyprus
Two main documents address drug-related interventions in the prison setting: the Prison Regulations (1997) and the drug action plan 2017-2020. The Prison Regulations provide for the medical examination and treatment of all people in prison, including treatment for drug-related problems. In addition, the treatment and social reintegration pillar of the drug action plan 2017-2020 includes, under priority 7 on assurance of social reintegration services, an action providing for reinforcing existing mechanisms for the social reintegration of people who use drugs upon their release from prison.

Norway
The Norwegian action plan addressing substance use and addiction for the years 2016-2020 recommends an interdisciplinary approach that aims to strengthen primary health services and outpatient psychiatric treatment in prisons; establish new interdisciplinary specialised treatment services in prisons when necessary; encourage increased use of the option to serve a sentence in an institution outside prison; consider how detoxification services for people in prison can be strengthened; and expand an existing pilot 'drug programme with court control' into a permanent intervention.

EU drugs strategy 2021-2025

The EU drugs strategy 2021-25 includes prison as a strategic priority, with the objective of addressing the health and social needs of people who use drugs in prison settings and after release (Council of the European Union, 2020).

Four priority areas are identified in the strategy. First, it will be necessary to assure equivalence and continuity of healthcare provision in prison and by probationary services. To that end drug treatment services, including opioid agonist treatment, rehabilitation and recovery for drug-using offenders as well as interventions aimed at reducing stigma should be provided in male and female prisons and after release, in addition to supporting social reintegration. Each Member States should develop an appropriate continuum of care model to allow people to access the needed support to achieve their personal recovery goals at prison entry and during imprisonment. Equally, people released from prison should be supported with healthcare and social, employment, housing and reintegration services. It is essential to provide continued access to evidence-based drug services, equivalent to that provided in the community.

The second priority area indicated in the strategy concerns the implementation of evidence-based measures to prevent and reduce drug use and its health consequences, including measures to address the risk of drug-related deaths and the transmission of blood-borne viruses. To that end the use of drugs and the transmission of blood-borne infections in prison should be prevented by implementing evidence-based preventive measures and risk and harm-reduction interventions, carried out by well-trained staff or peers as part of a comprehensive strategy. Providing access to testing and treatment for blood-borne infections and other measures that reduce the health risks associated with drug use should be considered for prison settings in the same way as is done in the community.

The third priority of the strategy is '[to] provide overdose prevention and referral services to ensure continuity of care on release'. Overdose awareness trainings in combination with the distribution of take-home naloxone might be made available where possible, in order to reduce overdoses and drug-related mortality.

Finally, the availability of drugs in prisons should be restricted by disrupting the channels that supply illicit drugs and new psychoactive substances into prisons as a priority action. A better use of the existing instruments, such as cooperation with law enforcement agencies, sharing and processing information, tackling corruption, using intelligence and drug testing, could form the basis for effective intervention.

2014; WHO Europe, 2019). In 2017, the EMCDDA released a European guide on health and social care responses to drug problems (EMCDDA, 2017), which identifies prisons as one of the key settings for implementation of targeted interventions to reduce and prevent drug use and drug-related health harms. For situations where detention is not avoidable, a comprehensive set of evidence-based interventions is described, including drug dependence treatment, psychological treatment and provision of naloxone at or around release (EMCDDA, 2017). Furthermore, among the primary measures identified to reduce imprisonment (and thus drug problems inside prison) are alternatives to punishment, which aim to divert offenders who use drugs into dedicated treatment programmes. Finally, the European Centre for Disease Prevention and Control (ECDC) and the EMCDDA have published a collection of evidence-based public health guidance on prevention of communicable diseases in prison settings, which include specific prevention interventions targeting people who inject drugs (ECDC and EMCDDA, 2018).

National guidance documents dedicated to or covering specific aspects of prison health, such as problem drug use, have been developed in several EU/EEA countries (see overview in ECDC and EMCDDA, 2018). Among these, the UK National Institute for Health and Care Excellence (NICE) released comprehensive evidence-based guidance covering all aspects of health in prison (NICE, 2016) (see box 'National guidelines: NICE guideline on the physical health of people in prison').

Drug-related interventions in prison: an overview

Interventions for people in prison with drug-related problems can be categorised according to the phase of imprisonment in which they are delivered (prison entry,

National guidelines: NICE guideline on the physical health of people in prison

In 2016, NICE published an evidence-based guideline on the physical health of people in prison (NICE, 2016). The document covers the assessment, diagnosis and management of the physical health needs of people in prison. It aims to improve health and well-being in this population by promoting more coordinated care and more effective approaches in prison settings. While the guidance document is targeted to the UK health system, the evidence-based recommendations and practical advice may be transferable or easily adaptable to other European contexts. The guideline includes a number of implementation-oriented tools such as a health assessment checklist, interactive flowcharts describing the organisation of the prison health system and individual system navigation, care pathways and quality standards.

stay or release), the setting of the interventions (outpatient or inpatient treatment) and the treatment modality (e.g. psychosocial counselling, pharmacological treatment). Figure 4.2 illustrates this categorisation and presents a simplified overview of the drug-related interventions that may be provided in prison. Different phases may overlap, and settings and modalities for the provision of drug treatment may also differ between countries and prisons. The remainder of this chapter is structured according to this general description, albeit with the omission of harm reduction interventions, which are covered in depth in Chapter 5.

A variety of drug-related interventions are available in European prisons including health assessment and detoxification on entry to prison; treatment and harm reduction and interventions in preparation for release and social reintegration (Table 4.1 and Figure 4.3). For each group of interventions, examples from three countries are presented in the text boxes (but see Chapter 5 for harm reduction). In most countries, interventions for the prevention and treatment of drug-related infectious diseases are available in prison along with opioid substitution treatment and counselling, information, training and education. Very few countries have needle and syringe programmes, programmes for take-home naloxone and peer interventions. A European overview of the availability of drug-related interventions in prison by number of countries providing the different interventions is shown in Figure 4.3. Table 4.1 maps the availability of various drug-related interventions in prisons in the EU Member States, Norway, Turkey and the United Kingdom; the data presented indicate whether the intervention is reported by the Reitox national focal point as being available. It is possible that interventions exist that are not reflected in formal guidelines or laws and therefore may not be officially reported.

Drug-related interventions on entry to prison

Health assessment on entry to prison

Conducting a medical examination on everyone remanded in custody or entering prison after conviction is a core

FIGURE 4.2

Drug-related and other health and social care interventions targeting people who use drugs in prison, by phase of imprisonment

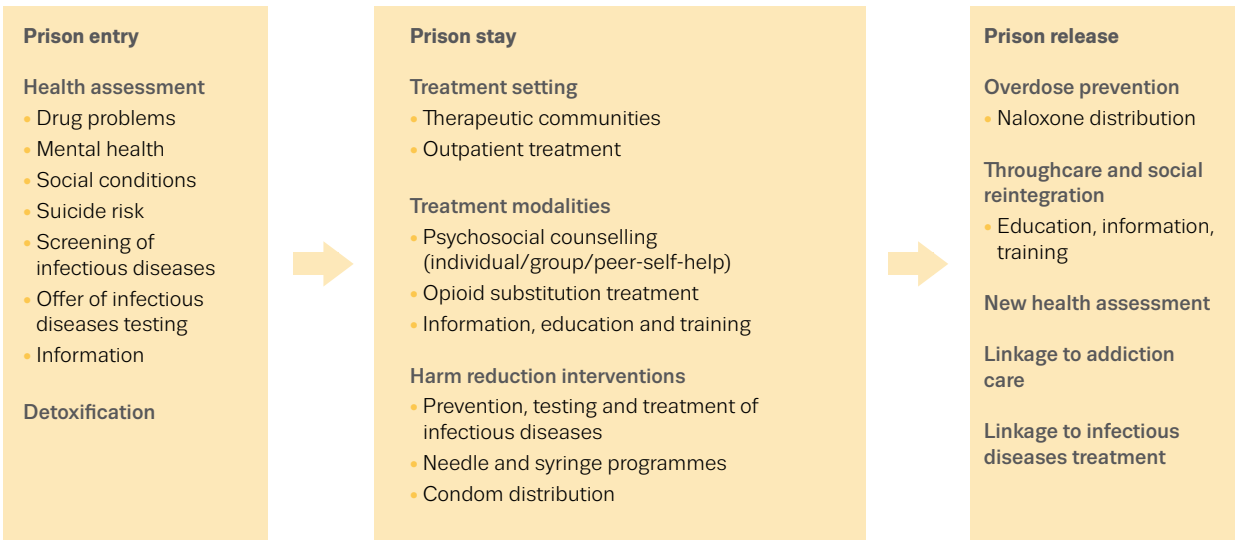
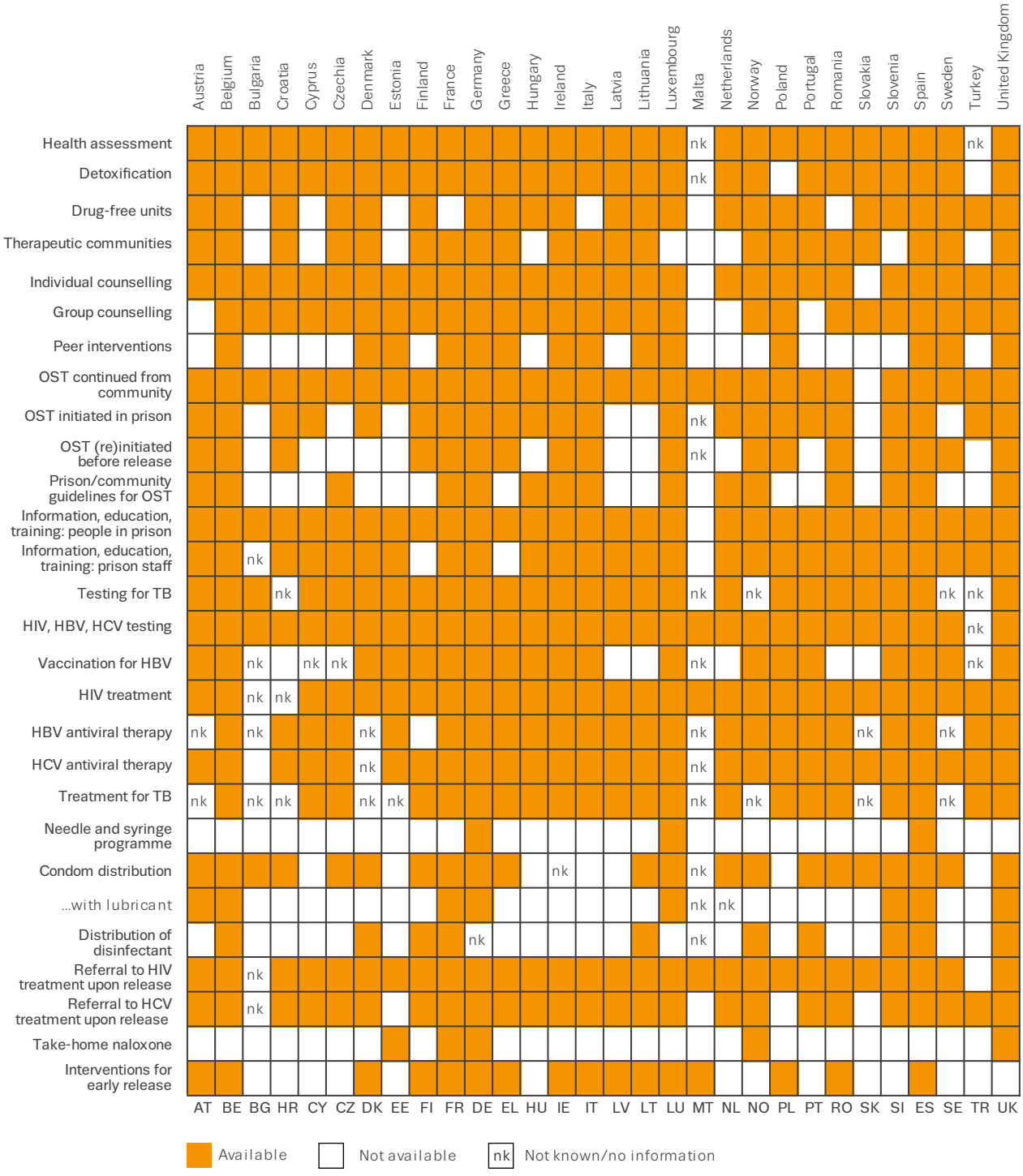


TABLE 4.1

Availability of drug-related and other health and social care interventions targeting people who use drugs and are in prison in the EU Member States, Norway, Turkey and the United Kingdom, 2019-2020

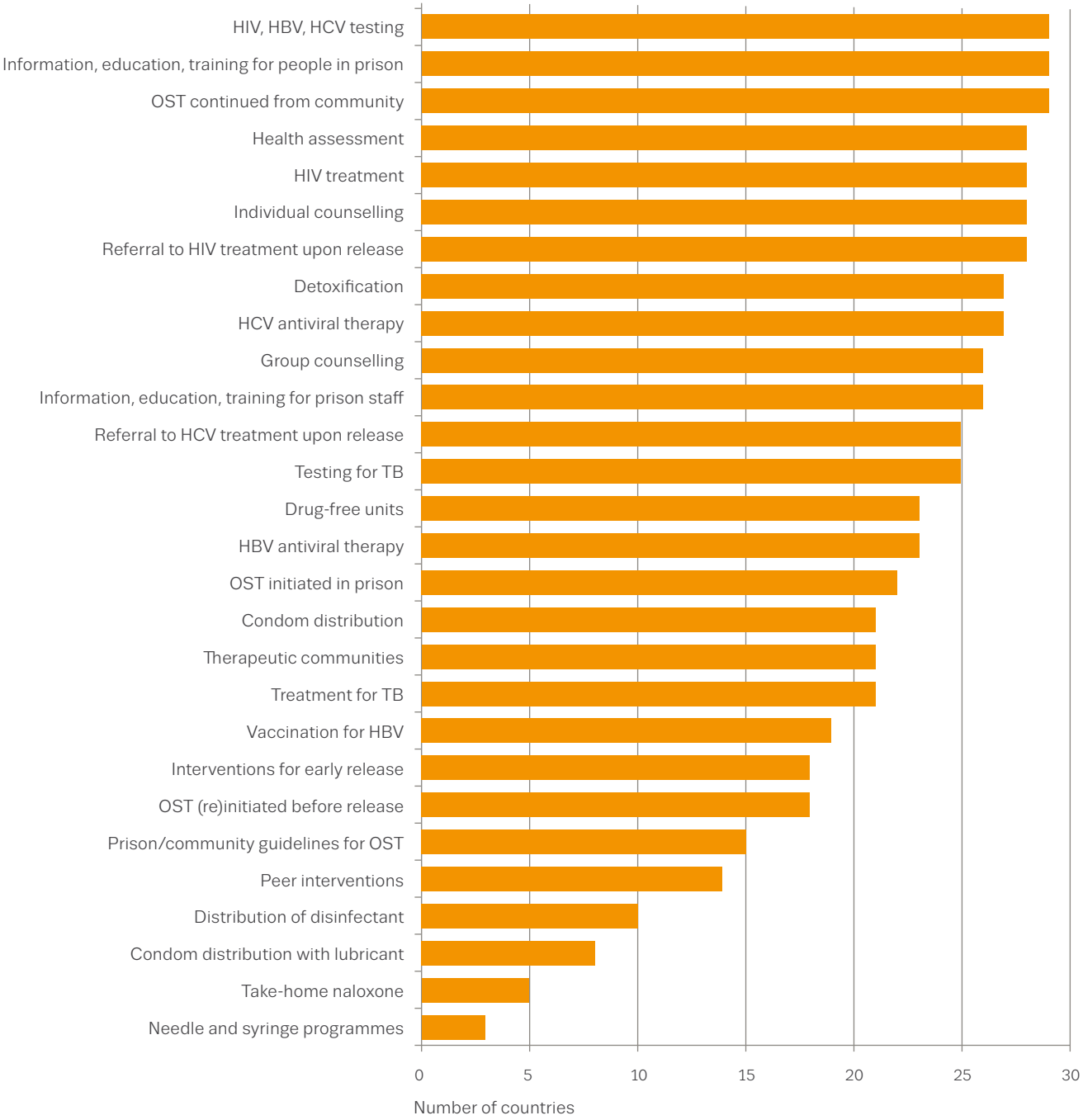


and standard practice in prison healthcare. The European Prison Rules recommend that a medical doctor and qualified nurse examine each person in prison as soon as possible after admission (Council of Europe, 2006). The health examination should include an assessment for symptoms of withdrawal from the use of drugs, alcohol or medication. The aim is to diagnose physical or mental illnesses, provide any required treatment and ensure the continuation of community medical treatment.

In line with the European Prison Rules, most European countries provide health screening for people entering prison, generally immediately on entry or within the first 24 hours (Table 4.1). The clinical assessment is performed by

FIGURE 4.3

Drug-related and other health and social care interventions targeting people who use drugs in prison in Europe, 2019 (number of countries given where available)



Source: EMCDDA Reitox monitoring data.

a medical doctor, psychiatrist or psychologist to ascertain whether the person has a substance use disorder or mental health problems. This is followed by a comprehensive medical examination performed within a specified timeframe, which may vary from within the first working day to up to 20 working days. Some countries include a specific assessment of drug-related problems. Belgium, for instance, is piloting the screening of drug-related problems on entry to prison.

The medical examination may involve a thorough medical assessment, an evaluation of the need for any specialised care, and testing for blood-borne viruses, sexually transmitted infections and, sometimes, airborne infections (e.g. TB). In some countries, such as Lithuania, Austria and Slovakia, standardised tests, questionnaires and interviews are used. In other countries, drug testing is conducted in the event of suspected drug addiction (see the section on drug testing in Chapter 7). Information on medical history,

General principles and organisation of drug treatment in prison in three European countries

Greece
In Greece, people in prison who use drugs constitute a specific target group. To respond to their needs, treatment programmes in prison alongside specific support interventions in the prison setting have been developed in recent years, by offering services such as individual and group counselling sessions, information, motivation and awareness-raising, and self-help groups. Medical treatment is also available.

Hungary
There is close cooperation between Hungarian prisons and governmental and non-governmental organisations in the provision of drug treatment services. The responsibility for drug treatment lies with the Ministry of Interior and has a strong focus on drug-related security, which is perceived as hindering the implementation of some harm reduction interventions.

Netherlands
Addiction treatment in prison is based on the principles of equivalence and continuity of care and is organised through collaboration between prisons and external addiction care services. Every prison appoints a contact person for drugs and addiction issues, who participates in regional training initiatives on the subject.

including drug use history and mental health disorders, is commonly collected. Voluntary infectious disease testing is also offered in most countries.

The medical consultation upon entry to prison is an opportunity to give information about treatment and prevention, raise risk awareness and distribute prevention materials, including hygiene kits and condoms. It may also include referrals to specialised drug treatment and care in prison. For example, in Ireland every person with a diagnosis of opioid addiction is offered a medically assisted opioid detoxification programme. In Slovenia, upon entry to prison, a sentence plan is prepared for each person on the basis of their needs and risk assessments; in this plan, overall needs are defined alongside the assessment of drug use problems.

In several countries, specific attention is given to the assessment of suicide risk. Although not always directly related to drug problems, suicide is the main cause of death inside prison (see Chapter 3). People in prison are at increased risk of suicide in the first few weeks of imprisonment, and this risk is higher among those who use drugs (Marzano et al., 2016). The importance of early identification of drug use in people at risk of suicide and referral to treatment has been acknowledged in several countries with an integrated treatment system aimed at reducing suicides.

Detoxification

Detoxification may be available on entry to prison following the health assessment and at other points further along the prison stay. Most countries in Europe provide detoxification with pharmacological interventions inside prison, mainly with methadone and buprenorphine, although in some countries unspecified non-opioid drugs are used. Approaches to detoxification treatment (requirements, length, forms) differ by country. In some countries, such as Greece, detoxification is a requirement for entering drug treatment in prison.

Withdrawal symptoms are usually evaluated by a doctor and then managed pharmacologically. In some countries, people undergoing detoxification are placed in special prison wings (drug-free units or rehabilitation units) or undergo special programmes. In the Netherlands, special detoxification programmes for users of GHB (gamma-hydroxybutyrate) are available in prisons. In some countries, detoxification may be provided in collaboration with external hospitals. In Luxembourg, detoxification is provided in-house under the responsibility of the prison medical unit, but people experiencing severe intoxication symptoms or presenting other somatic risks can be transferred to external units of general hospitals in accordance with strict rules and procedures. The Luxembourgish prison system has signed conventions with three general hospitals, ensuring out-of-prison medical healthcare when required.

Drug-related interventions during prison stay

A range of interventions are available to people who are in need and who opt to enrol in some type of drug treatment in prison. The levels of implementation and the quality of interventions available vary between countries and prison establishments.

Assessment on entry to prison in three European countries

Estonia
On entry, all people in prison undergo an initial health check that includes drug use screening and voluntary HIV testing and counselling carried out by medical personnel, performed under informed consent. Retesting is offered once a year. In addition, HCV testing is offered to all people upon entering prison as well as testing and, if required, vaccination against hepatitis B.

Spain
All people in prison are examined on entry by a doctor and a nurse, establishing a clinical history file. The risk of suicide is also determined. Drug use history and current use is evaluated, with regard to substances used, frequency and route of administration, and the presence of withdrawal symptoms. Risk behaviours, such as sharing of injecting equipment, sexual intercourse without protection or a prophylactic, and the application of tattoos are assessed. Assessment for communicable diseases covers infections such as TB, HIV, HCV, HBV and syphilis. On the basis of the results, appropriate treatment is determined and the person is assigned to programmes addressing their health needs, both mental, including drug dependence (maintenance with methadone, detoxification, etc.) and physical (treatment of TB, HIV or viral hepatitis infection, and vaccination against HBV).

Austria
Shortly after the start of a prison sentence all people undergo a medical examination in order to assess the state of their health on entering prison and to initiate treatment where necessary. This examination includes the collection of addiction-related or diagnostically relevant data by medical staff. An individual treatment plan is defined for each person in prison diagnosed with a substance use disorder. In addition, screening tests for HIV, HCV, HBV and TB are carried out on all people upon entry to prison.

Drug-free units

Drug-free units are available in many European countries. They are places inside prison that are free of drugs, but their final purpose is not drug treatment; they exist to provide an environment where people in prison remain abstinent from drugs and where those who do not use drugs can reside. There are no specific interventions provided apart from voluntary and regular urine testing to document abstinence. While this approach is implemented in some European countries (see Chapter 4), evidence on its effectiveness is lacking.

Nineteen countries report the availability of drug-free units in prisons. Drug-free units are residential spaces in prison that aim to be free of drugs, where people who do not use drugs and who do not want to use them can live in a drug-free environment during their prison stay. Those staying in these units commit themselves to not taking drugs and may sign a contract to undergo regular urine drug screening to document abstinence. For example, Denmark defines drug-free units as 'special contract departments', where no treatment is provided but where people in prison who do not wish to serve their sentence with those who use drugs can live in a drug-free environment. In a few countries, such as Luxembourg, Hungary, Portugal and the United Kingdom, drug-free units have a treatment component, but often no drug-related interventions are provided. People in prison who accept being in drug-free zones usually benefit from better conditions (e.g. more outside time and visits).

Drug-related interventions during this stage of imprisonment include detoxification, individual and group psychosocial counselling, residential treatment (therapeutic communities), OST, education and training, involvement in self-help groups, and harm reduction interventions (see Chapter 5).

Drug treatment programmes in prison can be carried out as outpatient or ambulatory interventions or as inpatient or residential interventions. Outpatient treatment is generally conducted in medical clinics or common spaces such as activity rooms and other dedicated spaces, where people can start drug treatment while they are living in

the spaces assigned to them on entry to prison. In some cases, people may also attend outpatient treatment services outside the prison. Outpatient treatment may include counselling, pharmacological treatment, and educational and training activities. The approaches may differ by country, and the level of provision also varies by country and by prison.

Residential treatment inside prison is provided in special units or wings to which people with drug-related problems are assigned after the initial assessment or at another time during their prison stay. Residential drug treatment programmes inside prison are commonly abstinence-based, although in some prisons OST is also provided in residential settings. They operate in a similar manner to residential programmes in the community, providing group and individual treatments that are delivered by professional staff, with support from successfully treated users. Therapeutic communities in prison are the main form of residential treatment.

In both outpatient and inpatient treatment, people with drug-related problems can undergo different modalities of treatment according to their needs and the services available. Often the same approaches applied in the community are also implemented in prison.

In a subset of 18 European countries that report data on people entering drug treatment inside prison, more than 30 000 are documented as having entered drug treatment in prison between 2015 and 2018.

Most entrants to drug treatment in prison were men, who most commonly reported opioids as their primary problem drug, followed by cannabis, cocaine and other substances (Figure 4.4). Variations between countries in the primary drug reported by treatment entrants in prison mirror the differences in the patterns of drug use of clients entering treatment in specialised drug treatment facilities in the community and are influenced by variations in treatment provision inside prison and in the prison system of each country (EMCDDA, 2018a).

Demographic differences can be seen when data for clients entering treatment in prison are compared with data for those treated in the community. For example, 10 % of the clients in prison are female compared with 20 % of female patients entering outpatient treatment in the community; the large proportion of men in prison may explain this difference (see Chapter 2). At the same time, women in prison represent only 5 % of the prison population; this implies that, compared with men, relatively more women in prison enter drug treatment, which is in agreement with the higher prevalence of drug problems among women in prison compared with men (see Chapter 3).

Residential treatment in prison in three European countries

Denmark

Therapy is offered in treatment departments, which are completely isolated from the ordinary prison environment. They focus on education, training and social reintegration and work according to the 'import model' — a treatment model in which both private and public treatment institutions independent of the prison and probation services offer treatment for drug use inside prisons in close collaboration with prison staff.

Italy

Special departments in dedicated sections of prisons are available for individuals with medical diagnoses of alcoholism or drug addiction and who have reduced their drug use, according to defined protocols. Compared with the rest of the prison environment, conditions are less restrictive in these departments, and professionals from public drug addiction services provide the same types of treatment as those provided outside prison. The activities are voluntary and focus on prevention, harm reduction, rehabilitation and social reintegration.

Poland

Open-ended therapeutic interventions for drug-dependent prisoners suffering from mental health disorders (dual diagnosis) are provided. These interventions are conducted under the prison drug therapy system in 23 specialist therapeutic wards.

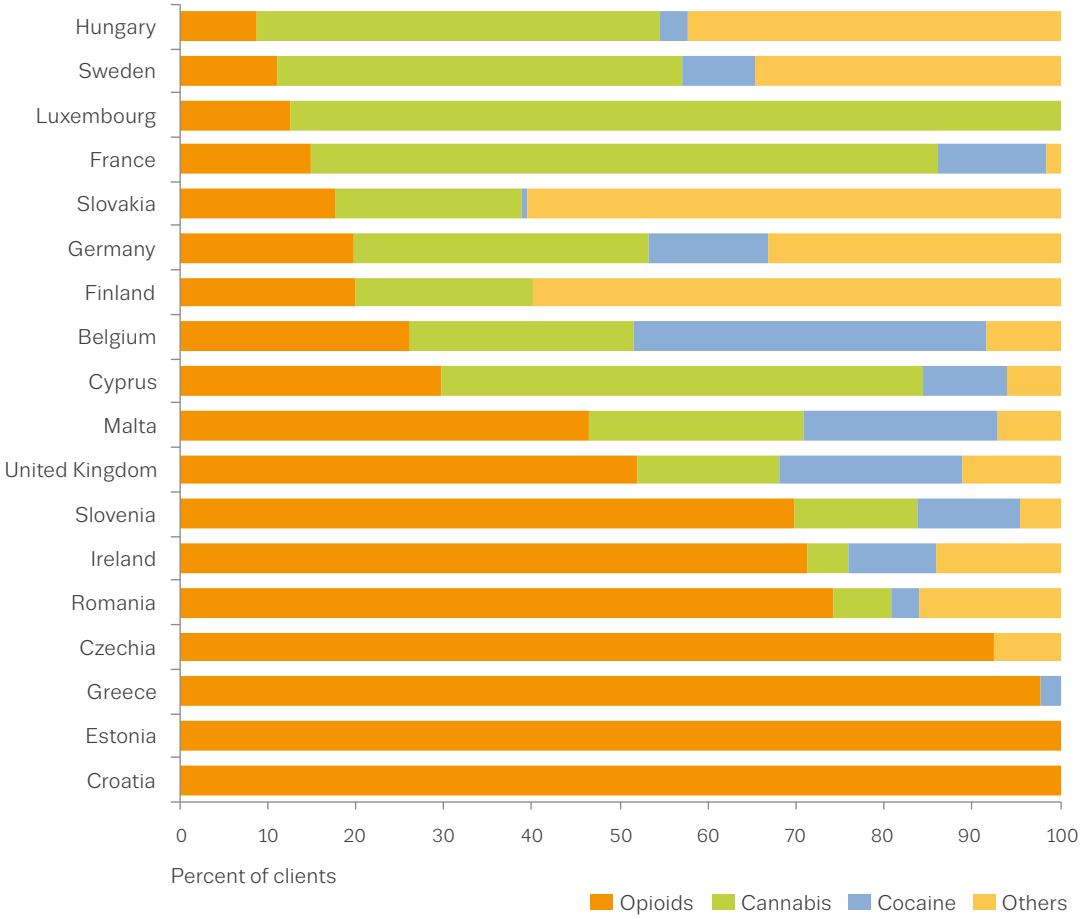
Therapeutic communities

In Europe, 21 countries report the availability of therapeutic communities in prisons. Such communities are generally a special form of long-term, participative, group-based residential treatment of drug addiction following milieu therapy principles (EMCDDA, 2012).

Therapeutic communities in prison may be special units separated from the main establishment or particular wings or parts of the prison; they provide structured programmes that include healthcare, psychological and social services, with the aim of preparing people for their reintegration into the community after their release from prison. This approach may

FIGURE 4.4

Proportion of people entering drug treatment in prison by primary problem drug in 18 European countries, 2018 (or most recent data available)



Source: Treatment demand indicator 2019.

also include detoxification, as in Ireland, where the medical unit in Mountjoy Prison has 18 beds specifically allocated to an 8-week drug-free programme. In Germany and Portugal, some therapeutic communities in prison provide OST. The approaches are often the same as those implemented in the community and may differ by country and prison.

Psychosocial counselling

Most European countries provide individual and group counselling to people in prison with drug-related problems, although coverage is generally reported to be low.

Individual counselling

Individual counselling interventions include needs assessment and care planning, psychological counselling, crisis intervention, motivational programmes, brief interventions, relapse prevention and harm reduction. Among the common counselling and treatment approaches applied in European countries are motivational interviewing, cognitive-behavioural and socio-educational interventions (e.g. social skills training). In addition, support is provided to OST patients in establishing connections with services in the community.

Individual counselling is available in most countries. Counselling may be offered within broader psychological support (e.g. in Spain and Slovenia), as part of structured drug treatment programmes (e.g. in Spain, France, Poland, Portugal, Sweden) or infectious disease interventions (e.g. in Estonia) and as support for pharmacological treatment (e.g. in Portugal). Some programmes are highly structured and include intensive and individualised counselling approaches; they are generally provided to only a small number of people in prison with drug problems. In other cases, individual counselling interventions are less structured and intensive and close to educational interventions, predominantly offered by social workers, and can be delivered to a larger number of recipients.

The number of patients reached by interventions, as well as the modalities used and length of individual counselling,

Group counselling in prison in three European countries

Sweden
Prisons offer cognitive-behavioural therapy carried out in groups, using an approach originally developed in Canada. The programme consists of 26 sessions of 3 hours each, held over a period of 2-3 months. After the programme is completed, maintenance sessions are provided throughout the remaining sentence. Sweden also offers a manual-based version of the 12-step programme, which is carried out in groups and includes one basic and two extended interventions, each consisting of 60 sessions of 3 hours over a period of 12 weeks.

Turkey
In Turkey, group programmes are the interventions most often available to people with drug addictions in prisons. Based on the model of the tobacco, alcohol and drug dependence treatment programme (SAMBA), group interventions provide information on tobacco, alcohol and drug addiction, aiming to improve knowledge and change motivation and behaviours; they also address infectious disease risks and relapse into substance use.

United Kingdom
Within the framework of activities targeting the emergence of new psychoactive substances in prison, focus groups were established in selected prisons to discuss issues surrounding the use of synthetic cannabinoids in prison; participants were also invited to distribute a questionnaire to other people in prison asking about their synthetic cannabinoid use.

varies greatly by country and by prison. In Czechia, for example, drug prevention counselling centres provided individual counselling to around 10 000 people out of the approximately 21 000 people in prison in the country; in Austria, the main external provider of services in detention centres gave individual counselling to around 2 500 clients out of 9 000 people in prison. Moreover, Croatia provided individual psychosocial treatment to around 450 clients (out of 3 300 people in prison) in 2017, and Sweden provided an individual cognitive-behavioural therapy programme to almost 1 000 clients (out of 5 770 people in prison) in 2017.

Group counselling

Group counselling interventions include education, information and group therapy. The approaches used may include cognitive-behavioural therapy (American Psychological Association, 2017) and '12 steps' programmes, which can complement individual interventions. Most countries provide group counselling mainly based on an abstinence-oriented approach. The groups use psychosocial techniques, including motivational therapy, coping and social skills training, behavioural self-control training, mutual aid, life skills and family work, with the objectives of addressing issues such as anxiety, stress, low self-esteem, conflict resolution, social skills and problematic family relationships.

Peer interventions/self-help

Peer interventions and self-help programmes are available for people in prison who use drugs in 14 European countries. These interventions vary from peer education and information on drugs, drug-related health risks such as the sharing of injecting equipment, liaison with prison authorities and peer-led research. In addition, some countries also offer family support or self-help groups such as Narcotics Anonymous.

Opioid substitution treatment

Across Europe, substitution treatment is the main form of treatment provided for opioid dependence. OST interventions in the community are implemented in all 30 reporting countries, and it is estimated that in 2018 overall (community and prison) 660 000 people received OST in the 27 EU Member States, Norway, Turkey and the United Kingdom (EMCDDA, 2019). With the exception of Slovakia, all European countries have implemented OST interventions for people in prison.

Figure 4.5 shows the year each reporting country introduced OST in the community and in prison. According to data reported to the EMCDDA, in general there is a delay of 8-9 years in introducing OST in prisons compared with its implementation in the community, but this treatment gap has recently narrowed in some countries. Lithuania was the latest country to introduce OST in prison (2018), in response to an outbreak of HIV in prison in 2016 and 2017.

In prisons where OST is available, those who have been receiving it in the community can continue to be treated in prison. In most but not all countries, OST can also be initiated in prison. In some countries, OST can be re-

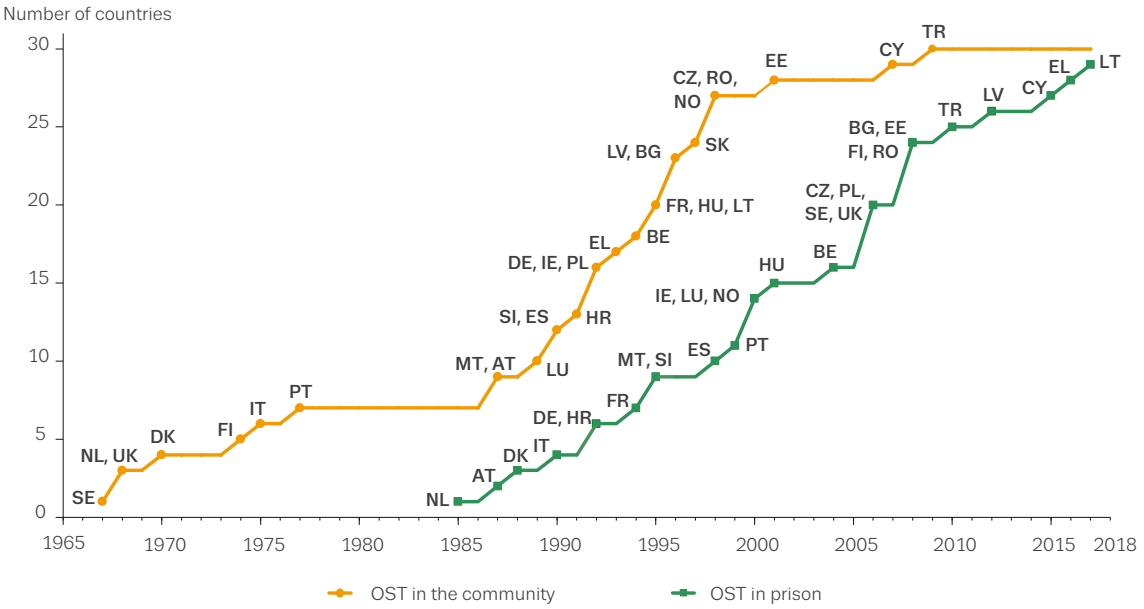
Peer-to-peer interventions in three European countries

Belgium
Peer support projects are implemented in prison to train people in prison on drug- and health-related topics. They work through a 'snowball technique' and are based on the idea that people in prison can contact peers to share important healthcare information.

Ireland
The Ana Liffey Drug Project is a low-threshold harm reduction programme carried out in the community, which also includes interventions for people in prison who are actively using drugs and experiencing associated problems. Services include a peer support programme that helps people in prison address their drug problems. In addition, the Irish Red Cross promotes a self-help programme for people in prison, focusing on health prevention, including drug use and drug-related problems.

United Kingdom
Several self-help groups and peer-to-peer initiatives are implemented in UK prisons. User Voice is a peer-led organisation providing support to people inside prison and those leaving prison concerning health and social problems, including drug-related problems. In 2016 User Voice published the first report on use of synthetic cannabinoid receptor antagonists in English prisons from a user's perspective.

FIGURE 4.5
Cumulative number countries introducing OST in the community and in prison in the European Union, Norway, Turkey and the United Kingdom, 1965-2019



Source: EMCDDA Reitox monitoring data.

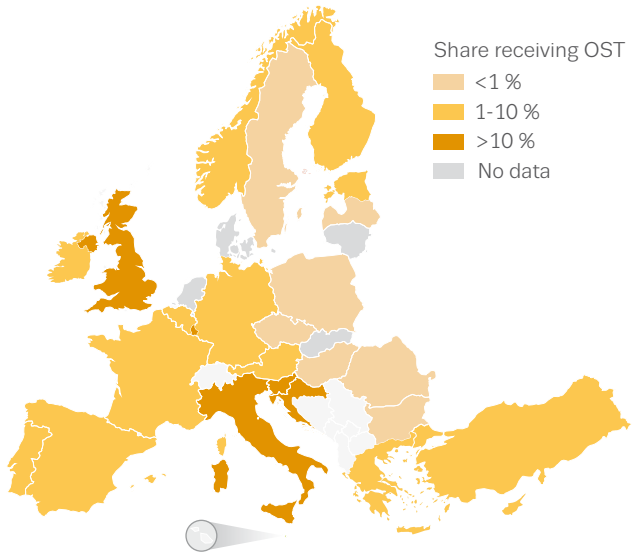
initiated before the end of the sentence to reduce the risk of overdose upon release (Tarján et al., 2019).

The substances most frequently used in OST in prison are similar to those used in the community in each country. Most countries predominantly use methadone, but Croatia and France mostly use buprenorphine, and Belgium, Cyprus, Finland and Norway prefer a buprenorphine-naloxone combination (Tarján et al., 2019).

Continuity of care, when entering and leaving prison, is a critical issue for those undergoing OST because there is a high risk of overdose and of transmission of HCV infection when treatment is disrupted (Stone, 2018). One in three

FIGURE 4.6

Share of prison population receiving OST in prison in the EU Member States, Norway, Turkey and the United Kingdom



Data are for the year 2017 or the most recent available. UK data are for England only.
Source: 2018 EMCDDA Reitox monitoring data; 2016 SPACE statistics.

countries has specific guidelines addressing continuity of care and cooperation between OST services in prison and in the community (see also Chapter 5). Croatia reports having OST guidelines specific to the prison setting, and in Czechia and the United Kingdom guidelines for implementing drug treatment in prison include OST. Other countries make use of existing guidelines for providing OST in the community or guidelines for drug treatment in prison where OST is one among several options (e.g. the German Medical Association published guidelines for implementing OST that can be adopted in any setting).

Data on the proportion of people in prison who are opioid-dependent and receiving OST are not available, as the extent of problem opioid use among people in prison is mostly unknown. However, taking the total number of people in prison as the denominator and calculating a rate based on the reported number of clients receiving OST (Figure 4.6) is one way of illustrating the substantial variations in the provision of OST in European prisons. These rates are, however, only a 'proxy', as the need for treatment is likely to vary between and within countries. There is also no European information available on the dosages used in the provision of OST in prison.

As shown in Figure 4.6, most countries provide OST to less than 10 % of the prison population. Although this is only an indirect indicator of treatment coverage, data suggest a scarce implementation of OST in prison.

OST may be implemented in some but not all prisons within a given country or in some regions of a country but not in others. In Germany, for instance, prison administration and related policies are the responsibility of the federal states, leading to regional variation in the availability of OST in prison. In some federal states, few prisons are supplied with OST resources. The lack of treatment or low treatment rates point to an exclusive use of detoxification rather than substitution treatment and a policy oriented strongly towards abstinence in those prisons (de Andrade et al., 2018).

Responses to new psychoactive substances in prison

The rapid emergence of novel substances has meant that developing supportive health intervention responses is challenging, in particular in the prison context (Pirona et al., 2017). Many European countries report a lack of appropriate responses to new psychoactive substances in prisons, while others have only anecdotal information available.

The Wenner case

From 1991 to 2008, Wolfgang Adam Wenner, a male German national living in Bavaria, received methadone treatment for opioid dependence. In 2008, he resumed illicit heroin use and committed a drug-trafficking offence for which he was sentenced to 6 years in prison. Once in prison he requested that his OST continues; the Bavarian judicial authorities and courts refused and ordered abstinence-based treatment. Mr Wenner continued to demand methadone, while consuming a number of psychoactive substances available on the prison's illicit drug market. Because his request was not granted, he demanded that his health status and treatment be assessed by external specialists. This was also rejected. Mr Wenner resumed his methadone treatment when he was released from prison at the end of 2014. He lodged an appeal arguing that the two refusals infringed Article 3 of the European Convention on Human Rights. In its judgment of 1 September 2016, the European Court of Human Rights ruled that the refusal by the prison administration to provide an indicated OST during the prison sentence violated Article 3 of the Convention and the prison should have consulted independent experts (*Wenner* v. *Germany*, 2016; Junod et al., 2018).

In Germany, Ireland, Hungary, Poland, Slovenia and the United Kingdom, information initiatives and booklets, workshops or training modules focusing on new psychoactive substance use in prisons are provided to prison staff (EMCDDA, 2018b). In the United Kingdom, a wide-ranging programme has been undertaken to counteract new psychoactive substance use in prison. Among the measures implemented are legislative changes; a smoking ban; the development of new drug tests; information campaigns for people in prison; a national strategy and action plan to respond to people in prison under the influence of new psychoactive substances; and a toolkit to support prison healthcare and custody staff in addressing the use of such drugs in prison (Public Health England, 2017). The toolkit is an adaptation of an existing toolkit on responses to new psychoactive substances in the community (Abdulrahim et al., 2015) and provides guidance on interventions targeting new psychoactive substance use and related problems in prison. One of its key principles is the delivery of support based on observed symptoms ('treat what you see').

Partnerships between prison health services and providers in the community have proven important in delivering health education and treatment interventions for new psychoactive substance use and related harm in prisons. Typically, non-injectable synthetic cannabinoids are the most widely used new psychoactive substance in prison (see Chapter 2).

Opioid substitution treatment in prison in three European countries

Croatia
OST is available in all prisons. Informed consent is required to initiate treatment. Medications used include methadone, buprenorphine and the buprenorphine-naloxone combination, in accordance with guidelines for OST in the community. Until 2007, methadone was mostly used for detoxification and exceptionally as a maintenance treatment, but since then maintenance treatment has become a regular option for the prison-based treatment of opioid dependence; other medications have been introduced and are used for maintenance treatment.

Portugal
Pharmacological programmes include detoxification and maintenance programmes. Detoxification is available in one prison establishment. Maintenance programmes are available either in 'outpatient' settings (consultations within the prison clinic, out-of-prison consultations in a Centre for Integrated Responses) or, where they exist, in 'inpatient' settings in drug-free wings or prison wings that function as therapeutic communities.

Finland
OST is available in prison, and both buprenorphine and methadone are available. The Prison Health Services Unit is in charge of assessing the need for treatment of people addicted to opioids and of initiating treatment, based on criteria determined by the criminal sanctions sector. On a given day in 2019, between 100 and 130 (out of 3 000 people in prison in the country), approximately 3 %, were receiving substitution treatment.

Information, education and training

Interventions providing information on drug prevention and risks are common in European prisons and are usually delivered in group settings. Most countries have education and training activities for people in prison and information and training activities for prison staff. Compared with previous years, more countries report the availability of such interventions for both staff and people in prison.

Training activities focus on two main areas: drug use and associated risks, and psychological and social development. Training objectives include raising awareness of drug use and related risks, learning how to deal with emergency situations (e.g. overdoses, effects of new psychoactive substance use), reducing harm (e.g. risks of sharing injection equipment; sexual transmission of infections), improving psychological skills (e.g. managing aggressiveness, increasing self-esteem), and achieving professional and occupational skills for social reintegration after release from prison.

The approaches adopted range from information sessions to selected and indicated prevention interventions. Often the same areas are covered in the training provided to both staff and people in prison, although training for staff tends to centre more on health and emergency interventions, while training for people in prison focuses more on harm reduction measures and the prevention of infectious diseases.

Information, training and education in prison in three European countries

Bulgaria
Health education programmes on prevention are conducted in prisons to enhance health awareness and promote healthy behaviour among people in prison. The topics most often discussed are related to the different types of drugs, reasons for using drugs, and health and social consequences of using drugs.

Latvia
In 2019, nine social reintegration programmes were implemented in prisons addressing the risk of specific criminal behaviour or opportunities to acquire specific social skills or abilities.

Slovenia
Workshops are organised for people in prison to raise awareness of the possible complications and harmful consequences of using new psychoactive substances. The aim of these programmes is to strengthen knowledge and skills in response to the increasing use of new psychoactive substances by recognising behaviour patterns and teaching problem-solving skills, strengthening work habits and responsibilities, and strengthening social networks.

Drug-related interventions on release from prison

Specific pre-release measures are needed for those who use or have used drugs. As a group, people leaving prison have particular health-related vulnerabilities, including the risk of relapse into drug use, overdose and overdose death, and transmission of infectious diseases (Enggist et al., 2014; WHO Europe et al., 2018). To ensure an easier transition into community treatment, cooperation between services operating inside the prison and health and social services outside in the community is especially important.

There are two important interlinked components in interventions for release from prison: linkage to services in the community in order to ensure that ongoing treatment for addiction and infectious diseases continues; and prevention of overdose deaths in the period immediately following release from prison.

Throughcare and social reintegration

Continuity of care after release from prison, often called 'throughcare', is an important principle for the health and social care of people in prison. Throughcare consists in ensuring continuity of care before, during and immediately after custody. Throughcare and referral to external service providers by prison or probation services can be crucial in preventing relapse into drug use (Patel, 2010). Most countries ([5]) report that they address the principle of continuity of care in their written strategies and guidelines for drug-related issues in prison (Tarján et al., 2019).

In countries where prison and community health services operate under the same roof, it is easier to achieve throughcare because integrated programmes operating inside prison can link people in prison with community services before their release. In some prison systems, there are pre-release units to facilitate referrals and ensure a smoother transition.

Interventions to prepare people for release from prison are available in all countries, although not in all prisons and not for all people in prison. Social reintegration is an important objective of prison release programmes, and they often focus on providing information on social benefits and connecting with social networks and services to support the return to the labour market. The interventions may be structured programmes, as in Luxembourg, or referrals to external services for different needs, as in Austria. Depending on the country's organisation of health and social services, coordination can be established with drug, social and mental health services and with specific hospital departments, such as infectious disease departments.

Interventions entailing early release

In many jurisdictions, undergoing drug treatment in prison is viewed as demonstrating commitment to rehabilitation and may assist people in prison in their applications for parole or early release. While some drug-related interventions may contribute in this way to early release, there are also a small number of drug-related interventions that include early release, that is, interventions in which both early release and drug treatment are core components.

The European Commission-funded *Study on alternatives to coercive sanctions as response to drug law offences*

([5]) Belgium, Bulgaria, Denmark, Germany, Ireland, Greece, Spain, France, Croatia, Lithuania, Luxembourg, Netherlands, Austria, Portugal, Slovenia, Finland, Sweden, Norway, United Kingdom (only Scotland and Northern Ireland; England reported that they are stated but not really implemented).

Interventions on preparation for release in three European countries

Belgium

Interventions for treatment upon release are available in the majority of prisons in Belgium. A specific team in each prison is in charge of referring people who use drugs and people with mental health disorders to treatment upon release. The team includes external social workers who define a treatment programme according to the needs of the person and who contact external drug treatment organisations to arrange a referral to healthcare and treatment services upon release. In Brussels, a pilot project on the continuity of care for people on release has been in operation since 2013. It seeks to refer people in prison to a treatment centre upon release so that they may continue substitution treatment; the prison has to provide enough substitution medication to cover the first 72 hours after release. Other pilot projects have recently been implemented in three other prisons in Belgium.

Germany

In the action plan on the implementation of the national HIV/AIDS strategy, the federal government recognises that transition from incarceration to life outside carries a special risk of overdose and stipulates that continuity of treatment should be ensured by the institution taking charge of the person released. People in prison with an expected high risk of relapse or mortality following release from prison can be enrolled in OST while still in prison. A naloxone project was launched in Bavaria, in which people in prison with current or past opiate use, or undergoing substitution treatment, were offered training on overdose risk and management, as well as first aid and the use of naloxone.

United Kingdom

In 2008, the Scottish government published a strategy to tackle health inequality entitled *Equally Well*. The document emphasises the need to provide interventions for people in prison who want to tackle their drug problems. Throughcare addiction services are offered to people who are being released from prison. According to the strategy, they should be able to gain access to addiction and health services within 6 weeks of release from prison. In addition, in Scotland and Wales, take-home naloxone is widely available for people at risk of opioid overdose upon release.

and drug-related crimes found that 2 out of 13 categories of alternatives to coercive sanctions identified in the European Union included some form of early release from prison (Kruithof et al., 2016): intermittent custody or release with a treatment element; and parole or early release with a treatment element. Alternatives to coercive sanctions were defined as state interventions to drug crimes having a rehabilitative element, namely education, treatment, rehabilitation, aftercare and social reintegration (Kruithof et al., 2016).

Intermittent custody with a treatment element includes interventions that involve, for instance, staying in prison or any other secure setting during the week and spending weekends in the community. This type of alternative to coercive sanctions is provided in Luxembourg, and treatment is only a possible element of the option. In Luxembourg, day parole is used with rehabilitation and social settlement in mind, whereby 'the person sentenced to imprisonment is authorised to carry on work activities, education programs, professional training as well as to undertake medical treatment outside prison. The sentenced person is required to return back to the correctional centre nightly and during his spare time' (Kruithof et al., 2016).

Parole or early release with a treatment element consists of temporary or permanent release from prison or detention under specific conditions. Treatment is considered as a central component of parole or early release options in Greece, Spain, Latvia and Poland, while in Luxembourg, Malta, Austria and Finland, treatment is considered a possible element to be included in parole or early release options. Belgium, Denmark, Germany, Ireland, France, Latvia and Romania also report the availability of interventions entailing early release (Table 4.1) ([6]).

Conclusions

Prisons across Europe offer a variety of drug-related interventions on entry to prison, during imprisonment, and upon release into the community. Most interventions showing some evidence of effectiveness in the community have been implemented in prisons, albeit with some delay and limited coverage. OST, for instance, is available in the community in all EU Member States, Norway, Turkey and the United Kingdom and in prison in all but one country. Yet, OST is available only to a small proportion of those who need it in prison, and often it is offered only to people who

([6]) Sanctions consisting of drug treatment but not shortening a prison sentence are not included in this study.

had already started it before imprisonment. Peer-to-peer interventions, which can play an important role in prison in supporting people who use drugs and informing them of available treatment options, are implemented in only one third of European countries.

There are many obstacles to implementing drug-related interventions in prison, including overcrowding, staff shortages and lack of resources. In addition, prisons are places of punishment. Public sentiment and political will, informed by perceptions of the deservedness of people in prison, may have an impact on the implementation in prison of interventions widely available outside. Furthermore, responding to needs arising from illicit behaviours is challenging in the community but all the more so in prison settings, where people may feel that disclosing their illicit activities carries a bigger risk of incurring additional penalties. Bearing this in mind, establishing trust between people in prison and healthcare staff is of core importance in these settings, as is implementing appropriate training.

The available data on drug-related interventions in prison, including availability, provision, coverage, quality and effectiveness, in Europe are scarce and largely of limited comparability. Improved documentation of the nature, quality, coverage and demand for drug-related interventions in prison would allow for a better understanding of the needs of people in prison and inform appropriate service planning for prison settings and linkages between prison and the community.

Despite existing obstacles, prison is a core setting in which otherwise hard-to-reach at-risk groups, such as people who use drugs, can be contacted and treated. Considering that people in prison are eventually returned to the community, interventions in prison are likely to have a significant impact on public health.

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5

CHAPTER 5

A focus on harm reduction interventions in prison

Linda Montanari, Anna Tarján, Ines Hasselberg, Wayne Hall, Liesbeth Vandam, Amber Vernooij and Heino Stöver

Prisons are high-risk environments for the transmission of blood-borne virus and airborne infections (Altice et al., 2016). This is so for a number of reasons, including the over-incarceration of populations at greater risk of contracting HIV, hepatitis C and TB, such as people who use drugs; risky behaviour in prisons, such as unsafe injecting drug use; inadequate healthcare and late diagnosis of disease; substandard prison conditions and overcrowding; poor ventilation; and repeated prison transfers (Csete et al., 2016; Csete et al., 2018; Lazarus et al., 2018; Snow and Levy, 2018; Stone and Shirley-Beavan, 2018).

This chapter discusses the availability and provision of harm reduction interventions in prison. It includes interventions directly targeting drug use and drug-related problems, such as prevention and treatment of infectious diseases, and interventions that, while not directly addressing drug use, may be part of a package provided to people in prison, such as condom distribution and safe tattoo programmes, which seek to reduce the transmission of blood-borne viruses and sexually transmitted infections.

Harm reduction: reducing health-related harms of drug use

Harm reduction interventions are implemented in prison to reduce the health and social harms of drug use to the individuals and the prison community. A core principle of harm reduction is developing pragmatic responses to deal with drug use through a hierarchy of intervention goals that place a primary emphasis on reducing the health-related harm of continued drug use (EMCDDA, 2010).

A large proportion of people who inject drugs go through the prison system, many of whom are often hard to reach in the community and thus hard to treat (see Chapter 2). Prisons can be a core setting in which to reach them and provide harm reduction, counselling, testing and treatment services before they return to the community.

A range of measures are recommended to reduce drug-related infectious diseases among people who inject drugs. These include the provision of OST (see Chapter 4), the distribution of sterile injecting equipment, vaccination, testing and treatment for infectious diseases as well as health promotion interventions focused on safer injecting behaviour and reduced sexual risk behaviour (EMCDDA, 2018) (see also Chapter 6).

Many of these measures are available in European prisons, including testing for and treatment of infectious diseases, in particular hepatitis B and C, HIV and TB; hepatitis B vaccination; needle and syringe programmes, condom and lubricant distribution and provision of disinfectant materials; naloxone distribution; education; and counselling. However, information on the level of provision and on the modes of implementation of these interventions is scarce, and large differences seem to exist between countries, and within countries between different prisons. Information on the evidence available for the effectiveness of these measures is reported in Chapter 6.

Testing, vaccination and treatment of infectious diseases

People who inject drugs constitute a significant proportion of the population with blood-borne infections, particularly HIV and HCV (Stone, 2018) (Chapter 3). While prison is a core setting in which to reach this population, providing treatment in prison may be a considerable challenge to prison systems because of its costs, the need for collaboration with infectious disease and drug dependence specialists, and other factors such as structural barriers in the prison system.

EU-funded projects: HA-REACT

The Joint Action on HIV and co-infection prevention and harm reduction (HA-REACT) project, which took place between 2015 and 2019, addressed existing gaps in the prevention of HIV and other co-infections, especially TB and viral hepatitis, among people who inject drugs. Among the areas covered by the project, prison health is central. One of the HA-REACT project's outputs, a toolbox on how to advance harm reduction in prison settings, is available on a dedicated web platform (hareact.eu). Among the tools available are information, education and practical implementation materials targeting healthcare professionals operating in prison settings, prison administration and other relevant stakeholders (e.g. community-based organisations): materials are oriented towards implementing interventions such as OST and prison needle and syringe programmes, condom distribution and provision of take-home naloxone.

It is important that testing for infectious diseases is offered to people in prison but that it is not mandatory (EMCDDA, 2010; UNODC et al., 2013; ECDC and EMCDDA, 2018). During the medical assessment on entry to prison, a radiographical examination may be performed if required. ECDC guidance suggests that early detection of TB may be followed by preventive measures such as isolating a patient during the infectious period to mitigate the risk posed by highly infectious airborne diseases in closed settings (ECDC and EMCDDA, 2018). Testing in prison for TB is available in prisons in most European countries; in Hungary it is mandatory for all new entrants to prison and annually for all those staying in prison (Tarján et al., 2019).

Testing for HIV, HBV and HCV is voluntary in all prisons in Europe and more often than not includes pre- and post-test counselling. In Austria, HIV testing is offered on a routine basis to all people entering prison, and testing for HIV, HBV and HCV is usually performed when an individual arrives in prison, a year after previous testing, or more frequently if medical necessity demands. For HCV, there are insufficient data available to distinguish whether tests and screening are conducted to detect antigens or antibodies. In most countries, a confidential health record is created during the health assessment on entry to prison and updated as needed during the person's sentence. Electronic information systems and centralised databases are increasingly providing a system for monitoring the health of people in prison, even as they move between prison establishments. In Finland, infectious disease tests are recommended for all people in prison. The UK prison service has recently adopted an opt-out approach to testing: infectious disease tests are proactively offered to all those entering prison, who can accept or refuse the test. Tests are usually accompanied by educational interventions, which may be followed by structured counselling, as in Luxembourg, or by informative sessions, as in Hungary. At the European level, data on the coverage of testing are scarce and of limited quality.

Based on available data, HIV testing rates among people in prison in the last year (2017) in 13 EU Member States and the United Kingdom ranged from 2 % (in Hungary) to 100 % (in Estonia). An estimate of HIV testing coverage ([7]), defined as the proportion of people in prison tested in the last year, was available from 16 countries, according to which five countries reported full coverage (> 95 %), two high coverage (61-95 %), one medium coverage (30-60 %) and eight low coverage (< 30%) (Tarján et al., 2019) (Figure 5.1).

HCV testing is not always offered to or requested by people in prison. Because the infection is often asymptomatic, many people in prison are not aware of their status. HCV testing rates ranged between 5 % and 100 % in 11 countries. Among the 15 countries reporting coverage, coverage of HCV testing in the last year was estimated to be full in three countries, high in one country, medium in three countries and low in eight countries (Tarján et al., 2019) (Figure 5.1).

HBV testing rates among people in prison in the last year ranged between 4 % and 100 % in 11 countries. Full coverage was reported in three countries, high coverage in two countries and low coverage in 10 countries (Tarján et al., 2019). Positive results are commonly followed by post-test counselling. HBV vaccination in prison is available in 19 European countries (Tarján et al., 2019) (Figure 5.1).

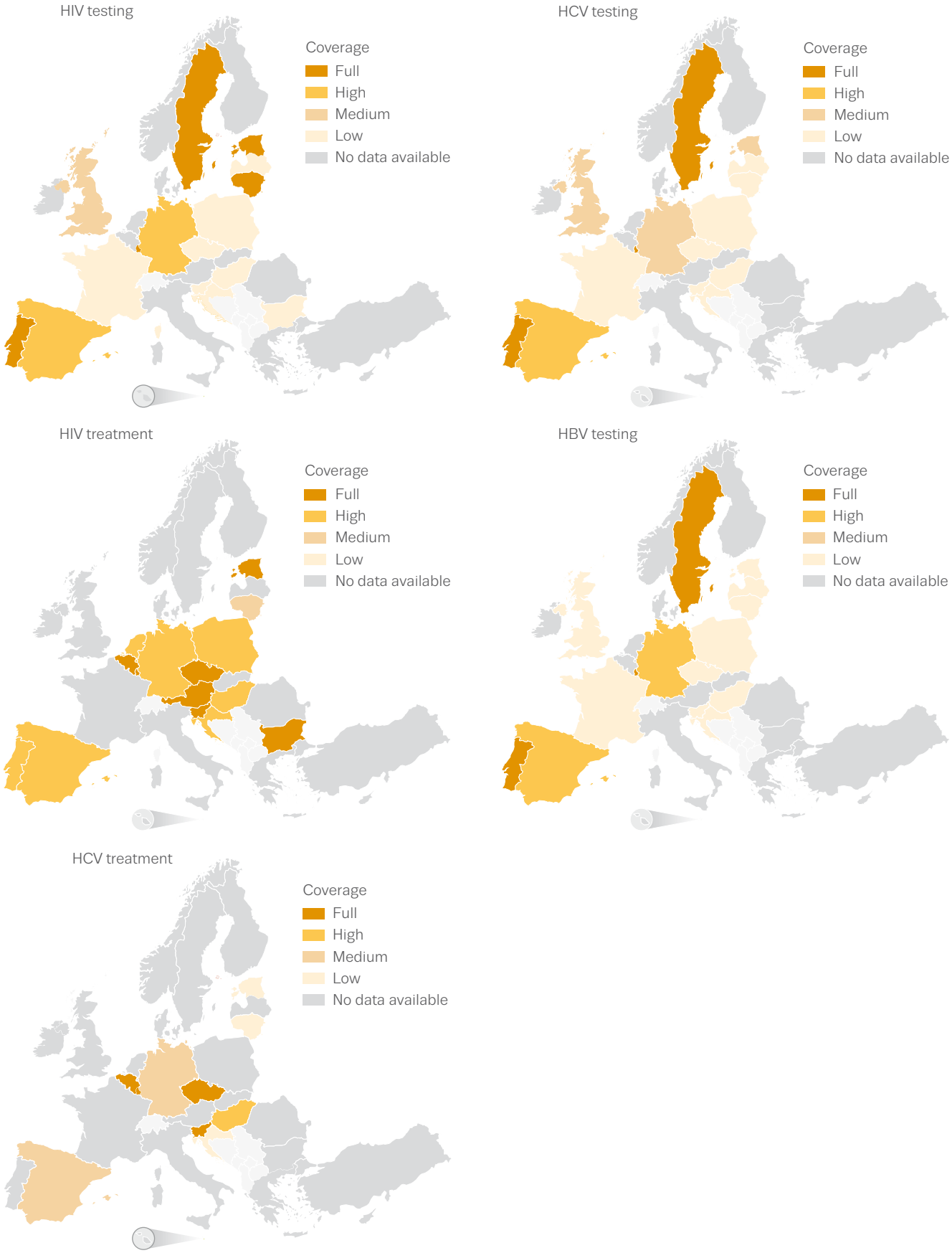
Treatment of infectious diseases is available in prison in most European countries. It is mainly provided within a set of interventions that include counselling, post-exposure prophylaxis and linkage with external services during treatment in prison and upon release. Differences in how continuity of care is implemented are reported by country, prison and type of treatment. In general, there is no full provision of harm reduction interventions both in terms of number of prisons and of people in need.

HIV antiretroviral therapy is available to people in prisons in all countries for which information is available. Full

([7]) Estimated coverage was calculated on the basis of testing rate or, if that was not available, the coverage was estimated by experts.

FIGURE 5.1

Coverage of HIV, HBV and HCV testing and HIV and HCV treatment in prison in the EU Member States and the United Kingdom, 2016-2017



Source: Tarján et al., 2019.
Coverage: full > 95 %; high, 61-95 %; medium, 30-Ó0 %; low, < 30 %.

coverage (> 95 % of people in prison in need are in treatment) is reported in seven countries and high coverage (60-95 %) in another seven countries out of 15 for which this information was available (Tarján et al., 2019) (Figure 5.1). In some countries, such as Spain, treatment is provided inside prison, while in others, such as Croatia, patients are referred to external community services. In France, a prophylactic antiretroviral therapy is provided to people in prison and to prison staff after accidental exposure to blood. In Lithuania, since the 2016-2017 HIV outbreak in prison, special attention has been given to the quality of HIV treatment.

Antiviral therapy for HBV is reported to be available in most European countries. Belgium, Czechia, Luxembourg and Slovenia estimate that almost all people in prison in need are enrolled in treatment (Tarján et al., 2019).

Prisons are considered a very important setting for reducing the national burden of hepatitis C and eliminating prison-to-community and prison-to-prison spread of the infection (Winter and Hellard, 2018). A growing body of evidence shows that HCV treatment is feasible and effective in prison settings. Direct-acting antiviral treatments for HCV have high cure rates and are less toxic than previous interferon-based treatments. Because of the short treatment duration (8 or 12 weeks), it is now more feasible to treat infected people who use drugs during a prison stay.

Antiviral treatment for HCV in prison is available in most European countries. However, data on HCV treatment coverage in prisons in Europe are scarce and indicate that only a small proportion of those in need are treated. Only Belgium, Czechia, Luxembourg, Hungary and Slovenia report a full or high coverage of HCV treatment in prison (Tarján et al., 2019).

Treatment for TB is available in prisons in the majority of European countries. Only Czechia, Estonia, Spain, Lithuania, Luxembourg, the Netherlands, Portugal and Slovenia report data on coverage of TB treatment in prison, and they estimate that it is full coverage (Tarján et al., 2019).

Referral after release from prison is essential to allow those leaving prison to continue HIV antiretroviral treatment: this is implemented, fully or partly, in the majority of countries. There is currently little information on the success rate of these referrals and the drop-out rate could be high (ECDC and EMCDDA, 2018; Tarján et al., 2019).

Little is known of people's opportunity to continue antiviral treatment for HCV when they leave prison. Based on the available data, referral to HCV treatment is fully or partially available in 25 countries (see Table 4.1). Adequate supplies of medicines for the treatment of HCV are provided to individuals on their release in Spain, France, Italy and Portugal. Enough medication is provided to cover either the transition period until individuals are effectively linked with community services or the entire duration of treatment when direct-acting antiviral therapies are used, which is increasingly becoming the standard of care (Stöver et al., 2019). The provision of prescriptions for these medications is the preferred option in the United Kingdom, combined

Harm reduction interventions targeting infectious diseases in three European countries

Spain

The main objective of risk and harm reduction programmes in Spanish prisons is to reduce the harmful effects of drugs on health. Harm reduction programmes in prison include a set of interventions ranging from testing, vaccination and treatment of infectious diseases to syringe exchange programmes and the supply of bleach, aluminium foil and condoms. Overdose action programmes, methadone maintenance treatment programmes, and general health education and information are also available.

Croatia

Harm reduction programmes include training and counselling on drug-related health risks and the prevention of infectious disease. They aim to improve the health and general medical condition of people in prison who use drugs. Interventions include substitution therapy, testing for infectious diseases, treatment of viral hepatitis, a preparatory procedure for and referral to HIV/AIDS treatment, and motivating people who use drugs to enter maintenance, detoxification and psychosocial treatment.

Lithuania

In Lithuania, a specific HIV testing scheme, based on epidemiological and clinical recommendations and defined by national legislation, is applied in prison settings. Under the scheme, every person in prison is tested for HIV: once a year (if not tested for other reasons); 4 weeks after the last test; and when first arriving in prison or when moving between prisons or territorial police custody if more than 4 weeks have passed since the last test (Tarján et al., 2019).

with active referral to a suitable service provider in the community.

Prison-based needle and syringe programmes

Interventions aiming to reduce the transmission of infectious diseases in prison settings include needle and syringe programmes and distribution of disinfectants, as well as other measures not specifically targeting people who use drugs, such as the distribution of condoms and lubricant, safe tattooing interventions and risk prevention strategies. These interventions may be implemented within a package of harm reduction measures, and often include a component of information and education. Methods of distribution may vary by country and by prison; for example, condoms and syringes may be distributed by healthcare staff or provided by machines; condoms may also be provided in the prison canteen and may be free of charge.

Needle and syringe programmes aim to provide sterile equipment for drug injection as a measure to prevent the risk of infection (WHO, 2004). Evidence shows that this intervention is effective in reducing the transmission of HIV among people who inject drugs in the community, and European public health guidance discusses the effectiveness of implementing needle and syringe programmes in prisons as part of a comprehensive set of harm reduction interventions (WHO, 2004; ECDC and EMCDDA, 2018) (see Chapter 6).

Prison-based needle and syringe programmes are available in only three European countries: Germany, Spain and Luxembourg. In Spain, needle and syringe programmes are implemented under central jurisdiction in all Spanish prisons where there are people injecting drugs, while in Luxembourg, the two prisons functioning in the country have implemented them. In Germany, a single programme exists in a women's prison in Berlin. In France, the law authorises needle and syringe programmes in prison in the framework of harm reduction measures; however, the regulatory measures to allow implementation remain to be adopted (Table 5.1). Needle and syringe programmes in prison remain controversial in many countries, even in those where needle and syringe programmes have been a longstanding and successful intervention in the community (Stöver and Hariga, 2016).

Other countries have also made efforts in this regard. A pilot project launched in 2007 in Portugal was discontinued without distributing any syringes, because of the absence of demand for clean syringes; and in Romania

Needle and syringe programmes, condom distribution and safe tattooing in prison in three European countries

Czechia

Since 2017, one Czech prison has been running a programme for condom distribution. Condoms are provided through dispenser machines and upon request. They are also available to purchase in all prison canteens. Free condoms are available only in prisons with rooms for non-standard visits, where the person in prison can be alone with their external visitor.

Spain

Since 1997, all 97 prisons have had the technical and legal conditions required for exchanging needles and syringes for people who are injecting drugs. The exchange kit includes a needle and syringe inside a transparent box, a disinfectant wipe, distilled water and condoms (photo).

Needle and syringe kit, Spain

Copyright: Vicedirectorate General of Penitentiary Health of Spain.

Luxembourg

In 2017, a structured safe tattoo programme was set up in one of Luxembourg's two prisons. It is a peer-to-peer project that provides the opportunity to have a tattoo in appropriate hygienic conditions, preventing the transmission of communicable diseases. The safe tattoo project is subject to strict regulations. People in prison who are interested may apply to become an official tattoo artist and can undergo specific training. Since 2018, the programme has trained 20 male and female tattoo artists. In total, 139 people have had a tattoo in prison since the implementation of the project.

a needle and syringe programme operated in several prisons but was not sustained once external funding ended. In the Netherlands, prison-based needle and syringe programmes are not implemented, as there is no indication of injecting drug use in prison (Tarján et al., 2019).

Other interventions for preventing infectious diseases in prisons

Other harm reduction interventions may be offered in prison that do not directly address drug use but may be part of a package provided to people in prison. UNODC recommends 15 interventions as part of a comprehensive package for effective prevention of infectious diseases in closed settings such as prisons (UNODC et al., 2013), including condom distribution and safe tattoo programmes.

Condom distribution programmes are available in 21 European countries, less than half of which also provide lubricant (Table 4.1). A small number of countries report the distribution of bleach or other disinfectants in prison (ECDC and EMCDDA, 2018; Tarján et al., 2019) (see Table 4.1).

Safe tattoo programmes in prison are aimed at preventing the transmission of infectious diseases. Ten countries report the availability of information interventions on the risks of tattooing and piercing in prison (Tarján et al., 2019). Safe tattoo programmes in prison, which aim to provide a safer alternative to clandestine tattooing, are available in Luxembourg. These programmes provide a tattoo parlour where trained tattooists offer tattoos free of charge applying safe tattooing materials and standards (Tran et al., 2018).

Preventing overdose

The risk of overdose death for opioid users is particularly high in the first period after release from prison (Farrell and Marsden, 2008; Merrall et al., 2010) (see Chapter 3). In particular, the first one or two weeks after release have a greatly increased overdose death rate (Bukten et al., 2017).

The main responses aiming to reduce opioid-related deaths both in the community and in prison involve a set of interventions geared towards preventing overdoses from occurring in the first place and those focusing on preventing death when overdoses do occur (EMCDDA, 2017) (Figure 5.2).

A number of interventions are implemented with a view to reducing this risk, including pre-release counselling on overdose risk, training in first aid and overdose management, optimising referral to ensure continuity of drug treatment between prison and community, and distributing naloxone (Brummer et al., 2018). Information and education on overdose risks are available in most countries.

Naloxone is an opioid antagonist medication used in hospital emergency departments and by ambulance personnel to reverse opioid overdose (EMCDDA, 2016). In recent years, there has been an expansion of take-home naloxone programmes, which provide overdose training and make the medication available to those likely to witness an opioid overdose (EMCDDA, 2018).

People in prison are included in take-home naloxone programmes in Estonia, France, Norway and the United Kingdom. In Germany, a pilot project is under way in

TABLE 5.1
Prison-based needle and syringe programmes in five European countries

Country	Start date	Overview	Syringes/kits distributed
Germany	1996	4 dispensing machines, available in 1 prison (out of 181)	N/A
Spain	1997	Available in all prisons Distributed by health staff Kit includes syringe, disinfectant wipe, distilled water, condom	2018: 3 233 syringes Since 1997: more than 214 000 syringes
Luxembourg	2005	Available on request in all (2) prisons Provided by health staff Kit includes 2 syringes	2017: 23 kits distributed, and 1 372 syringes exchanged
Portugal	2007	Pilot programme terminated No current activity	0
Romania	2009	Operated in several prisons External funding finished No current activity	N/A

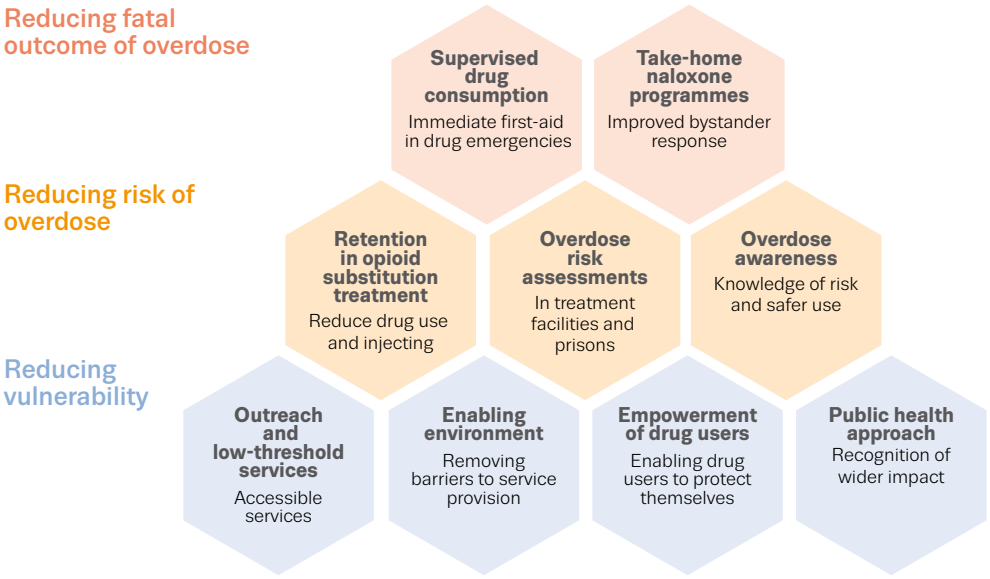
N/A, not available.

Bavaria. In England, a study was conducted across 10 prisons to analyse the perceptions of staff and people in prison regarding take-home naloxone programmes and to assess the barriers preventing the training of people in prison and the effective and timely distribution of kits (Sondhi et al., 2016). The findings highlighted the need for more training and information on a number of specific concerns, including the potential consequences of being found in possession of naloxone, lack of anonymity for people enrolled in the programmes, and logistical issues surrounding the training of people in prison and the distribution of kits at discharge.

Conclusions

Many people in prison experience negative health and social consequences related to their drug use. Prisons are also high-risk environments for the transmission of infectious diseases for a number of reasons, including the over-incarceration of vulnerable and disadvantaged groups who carry a disproportionately high burden of disease and ill health. Nevertheless, the availability and provision of harm reduction interventions in European prisons remains limited and it is not comparable to the level of provision of such interventions in the community. Some services, largely implemented in the community, are still not available in most European prisons, despite evidence to support their effectiveness. For example, needle and syringe programmes, to prevent the transmission of blood-borne viruses, and take-home naloxone programmes, to prevent overdose death, are available in prison in fewer than a handful of countries. Information on the provision and effectiveness of harm reduction interventions in Europe is limited. The overview presented here provides a baseline for monitoring at the European level, while highlighting a need for improvements in data quality, comprehensiveness and coverage in order to provide a solid evidence base for future policy planning.

FIGURE 5.2
Interventions to reduce the risk of opioid-related deaths



Overdose prevention interventions in three countries

Spain

In 2014, the action plan on overdose came into force. It comprises measures against the introduction and trafficking of drugs, or actions to reduce supply, and actions aimed at the prison population, or actions on demand. Overdose prevention is considered fundamental, because of the absence or low level of tolerance to opioids among those starting to use drugs in prison or having sporadic use in addition to the high risk of overdose after release from prison. The Spanish overdose prevention programme provides for specific actions when overdose occurs, including ensuring the person's complete recovery and subsequent follow-up and incorporation into a drug dependence programme.

Slovenia

Overdose prevention programmes are available in all prisons in Slovenia. Prior to release, people in prison who use drugs are warned that their tolerance to drugs has been considerably reduced, which means that small quantities of drugs or a combination of different drugs, alcohol and medicines can be life threatening for them.

Norway

Following the results of recent research showing the elevated risk of death from drug overdose among individuals recently released from Norwegian prisons, a project was funded by the Directorate of Health in 2017. Knowledge-based measures have been developed by the healthcare service for the care of people with drug-related problems, and a learning network model will contribute to implementing the measures locally. Four measures have been identified to reduce the risk of overdose: admission interview; information on overdose and saving lives; conversations upon release from prison; and 'agreement in hand' with health services or users' networks.

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6

CHAPTER 6

Available evidence and good practice addressing drug use and related harms in prison settings

Lara Tavoschi, Linda Montanari and Dagmar Hedrich

The organisation and availability of drug-related interventions in prisons across Europe are mapped in Chapters 4 and 5. This chapter remains focused on interventions but shifts the emphasis on to the evidence. It provides an overview of existing scientific evidence for drug-related interventions in prison and identifies the main knowledge gaps. In addition, it focuses on some new developments in responding to drug problems in prison. The evidence presented in this chapter has been collected from various sources, including published systematic reviews, guidance documents and the EMCDDA's Best Practice Portal.

Equivalence of care for people in prison is a well-recognised international standard (Council of Europe, 2006; United Nations General Assembly, 2015). The focus on provision may be insufficient for this population with complex health needs to achieve equity, and achieving equivalence of health outcomes may be a more appropriate objective to tackle (Charles and Draper, 2012). Thus, the main sections of this chapter report evidence on healthcare interventions targeting people who use drugs, and people who inject drugs, with a particular focus on health outcomes rather than on intervention type or time frame. More specifically, identified prison drug interventions have been categorised on their expected outcomes, with a major focus on three drug-related health outcomes: behavioural change, prevention of communicable diseases, and prevention of drug-related mortality.

Because of its relevance for different treatment phases and importance in achieving different outcomes, opioid substitution treatment (OST) in prison features under all three main health outcomes discussed here. Positive outcomes in the areas of social reintegration post release are also considered in this chapter. The available evidence of effectiveness of drug-related interventions in prison settings, using data extracted from the evidence database on the EMCDDA's Best Practice Portal, is summarised in an appendix to the chapter (Table 6.6).

Behavioural change in people who use drugs: key evidence in prison settings

This first section investigates the evidence for interventions whose primary objectives are those of behavioural change (Table 6.1). Such interventions are generally aimed at changing one or more psychological determinants of behaviour to promote safer conduct. When considering the prison population with experience of drug use, such approaches are mainly directed towards preventing or reducing drug use and drug-related harm. A number of these interventions, including drug treatment programmes, have been developed and tested for effectiveness in community settings, generating a relatively robust body of evidence to support their implementation (ECDC and EMCDDA, 2011, 2017).

The treatment of addiction in prison includes several options, although information on the level and extent of provision of interventions conducted in prison and targeting drug dependence, addiction and drug-related problems is lacking (see Chapter 4). With the exception of OST, evidence derived from studies conducted in prison settings on most of these interventions is limited, or lacking, leaving substantial knowledge gaps regarding appropriate and tailored ways of implementing interventions in this setting.

Identifying health needs: healthcare assessment at entrance

Mental illness, substance use and infectious diseases such as TB, HIV infection, hepatitis B and hepatitis C may be under-reported by people in prison because of social stigma or low expectations of treatment in prison. Health screening on admission to prison allows the identification of health needs at an early stage. A thorough assessment of the health status and health-

TABLE 6.1

Overview of the evidence of the effectiveness of drug-related and other health and social interventions for behavioural change in prison settings

Intervention	Details	Evidence rating	Desired outcome	Reference
Pharmacological treatment	OST (with methadone) in prison to increase post-incarceration community treatment engagement	Beneficial	To retain patients in treatment	Moore et al., 2019
Pharmacological treatment	OST to reduce injecting risk behaviour in prison	Beneficial	To reduce risk behaviours	ECDC and EMCDDA, 2018b, c
Pharmacological treatment	OST to reduce substance use in prison	Beneficial	To reduce substance use	ECDC and EMCDDA, 2018b, c
Pharmacological treatment	OST (with methadone) in prison to reduce post-release illicit opioid use	Beneficial	To reduce substance use	Moore et al., 2019
Pharmacological treatment	OST (with methadone) in prison to reduce post-release injection drug use	Beneficial	To reduce substance use	Moore et al., 2019
Continuity of treatment from prison to community	Continuity of care to improve post-release behavioural outcomes	Likely to be beneficial	To retain patients in treatment	ECDC and EMCDDA, 2018c
Needle and syringe programmes	Needle and syringe programmes in prison to reduce HIV and HCV transmission via shared injection equipment	Likely to be beneficial	To reduce infectious diseases; to reduce risk behaviours	ECDC and EMCDDA, 2018b
Provision of condoms and lubricant	Provision of condoms and lubricant in prison to reduce sexual risk behaviours	Likely to be beneficial	To reduce risk behaviours	ECDC and EMCDDA, 2018b
Therapeutic communities	Therapeutic communities in prison to reduce re-incarceration rates and drug misuse relapse	Likely to be beneficial	To reduce re-incarceration rates; to reduce relapses	Galassi et al., 2015
Needle and syringe programmes	Needle and syringe programmes in prison to reduce injecting risk behaviours (sharing of injection equipment)	Unknown effectiveness	To reduce risk behaviours	ECDC and EMCDDA, 2018b
Pharmacological treatment	Pharmacological v. non-pharmacological treatment to reduce drug use and re-offending among drug-using offenders	Unknown effectiveness	To reduce substance use; to reduce re-incarceration rates	Perry et al., 2015

Evidence ratings are based on GRADE.
Source: Evidence database, EMCDDA Best Practice Portal.

related needs of individuals being admitted into prison is a requirement of both European and international prison rules (Council of Europe, 2006; United Nations General Assembly, 2015). No scientific evidence is available on the benefits of performing such assessment nor on the most effective and acceptable approaches to implementing it. However, it is generally accepted that, upon admission to prison, a medical examination should be performed by a healthcare professional, which should cover the main areas such as physical health, including communicable diseases, alcohol and substance use, mental health, self-harm and suicide risk (Enggist et al., 2014). The NICE guidance document (NICE, 2016) provides practical advice on how to perform health assessments.

Healthcare assessment on entrance to prison may be of great relevance for individuals who have a history of drug use, including those who are receiving OST at the time of incarceration. While, in the first case, early identification of problem drug use and related health harms may lead to the development of an individualised support plan, in the latter, ensuring continuity of treatment is essential to avoid relapse and the resurgence of high-risk behaviour while in prison (ECDC and EMCDDA, 2018a,b,c).

Management of withdrawal: pharmacological interventions

There is very limited evidence on the effectiveness of pharmacological management of withdrawal in prison settings: one study performed in the United States reports an increase in drug-injecting behaviour following forced tapered withdrawal as an alternative to continuing OST (Rich et al., 2015). Anecdotal reports from a number of countries in Europe, such as Spain, Luxembourg, Portugal and the United Kingdom, suggest that voluntary and pharmacologically assisted withdrawal may be successfully implemented in prison. In Luxembourg, managing withdrawal symptoms is a requirement for enrolment in drug treatment in prison. However, according to recent systematic reviews on assisted withdrawal in community settings, there is no clear evidence on whether any of the medications, including naltrexone, is more effective than others in managing withdrawal nor in improving treatment

outcomes or minimising potential risks (Jarvis et al., 2018; Rahimi-Movaghar et al., 2018).

Opioid substitution treatment

OST is an intervention of proven effectiveness in the treatment of opioid use in community settings; in prison it is used in the different phases of drug treatment. In the initial health assessment of individuals who have a history of drug use, OST can be used for managing withdrawal symptoms, and discontinuing medication for those who have been engaged in OST programmes before incarceration may be risky.

OST is also used in prison as a treatment intervention for those assessed as having an opioid problem. A systematic review of 21 studies conducted in prison settings, regarding the effectiveness of opioid maintenance treatment, concluded that the benefits of this treatment when provided in prison are similar to those obtained in community settings. OST was significantly associated with reduced heroin use, injecting and syringe sharing in prison if doses were adequate. Continuation of OST for those who were following this treatment before incarceration is essential to avoid relapse and the resurgence of high-risk behaviour while in prison (ECDC and EMCDDA, 2018a, 2018b, 2018c). And pre-release OST was significantly associated with increased entry to treatment and retention after release if arrangements existed to continue treatment (Hedrich et al., 2012).

Therapeutic communities in prison

Therapeutic communities have been defined as drug-free environments in which people with problem drug use live together in an organised and structured way, and the community is used as a method of addressing the substance abuse and social and psychological problems of the individuals (EMCDDA, 2014a). Based on the consistent findings of two literature reviews (EMCDDA, 2014a; de Andrade et al., 2018), therapeutic communities appear to be effective in reducing relapse into drug use and re-incarceration. The effect on substance use after release is less durable, but evidence shows that it may be enhanced with appropriate aftercare interventions (de Andrade et al., 2018). Evidence from qualitative studies from the Nordic countries indicate that prison staff working in therapeutic communities reported a good sense of professionalism, engagement with the intervention and good relationships with the people in prison (Kolind, 2015; Kolind et al., 2015; Kolind and Duke, 2016). A 2019 systematic review of 25 studies on the effectiveness of prison-based behavioural treatment for people with drug- and alcohol-related problems suggests that the use of cognitive-behavioural therapy delivered in therapeutic community settings in prison is current best practice (Doyle et al., 2019).

Individual or group psychological support

Interventions aimed at offering psychological support to people in prison who use drugs have been explored in the literature, mostly targeting specific population subgroups, such as women in prison and people with mental illnesses (EMCDDA, 2017). However, a narrative review analysing different interventions targeting female drug-using offenders or drug-using offenders with co-occurring mental illness reported no evidence of effect on drug use (Perry et al., 2015).

Peer-to-peer interventions

Peer interventions, delivered to people in prison by people in prison, aim to improve health and reduce risk factors. Different modes of peer-to-peer activities have been identified, including peer education, peer support, peer mentoring and bridging roles (South et al., 2017). A systematic review explored peer-to-peer interventions in prison settings. Although most of the studies included were of poor methodological quality, the body of evidence suggests that peer education interventions are effective at reducing risky behaviours, are acceptable and have a positive effect on recipients. The review also concludes that being a peer deliverer is itself associated with positive effects on the individual (Bagnall et al., 2015). Peer-led interventions in prison may also be instrumental to research activities, such as situational analysis and information gathering, as exemplified by an analysis of the views and experiences of people in prison of new psychoactive substances in the United Kingdom (User Voice, 2016).

Prevention and control of communicable diseases in people who use drugs: key evidence in prison settings

Epidemiological data from EU and European Economic Area (EEA) countries indicate a higher prevalence of blood-borne viruses, namely HBV, HCV and HIV, among people in prison and particularly among those with a history of

injecting drug use (ECDC, 2018). Furthermore, people who inject drugs are at increased risk of acquiring one or more such infections while in detention (Altice et al., 2016; Stone et al., 2017). Injection site infections and injuries among people who inject drugs are a recognised health issue (Health Protection Agency et al., 2012; Hope et al., 2014) and may be of even more concern in prison settings, where clean injecting paraphernalia are mostly unavailable (Table 6.2).

Active case finding

Early identification of infections is fundamental to implementing appropriate primary and secondary healthcare measures. Active case finding is a strategy for the systematic identification of individuals or groups suspected to be at risk of a particular disease; it involves the targeting of resources and the use of tests, examinations and other procedures to enable early diagnosis. A sizeable literature exists on active case-finding interventions implemented in prison settings (ECDC and EMCDDA, 2017). Most of the studies are focused on testing for blood-borne viruses on admission to prison; however, evidence covers additional diseases such as sexually transmitted infections and TB (ECDC and EMCDDA, 2017). According to the available evidence, universal active case finding, preferably upon admission, is the most effective approach, at least for blood-borne viruses and TB, provided that confidentiality and consent are ensured (ECDC and EMCDDA, 2017, 2018a).

Opioid substitution treatment

OST is effective in targeting infectious diseases. When considering blood-borne virus prevention measures targeting people who inject drugs, scientific evidence

TABLE 6.2

Overview of the evidence base on the effectiveness of drug-related and other health and social interventions for prevention and control of communicable diseases in prison settings

Intervention	Details	Evidence rating	Desired outcome	Reference
HBV, HCV and HIV testing upon admission to prison	HBV, HCV and HIV testing upon admission to prison to reduce transmission	Beneficial	To reduce infectious diseases	ECDC and EMCDDA, 2018a,b
Health promotion and peer-education on blood-borne virus testing	Health promotion and peer education to increase blood-borne virus testing uptake in prison	Beneficial	To reduce infectious diseases	ECDC and EMCDDA, 2018a
Pharmacological treatment	OST to reduce injecting risk behaviour in prison	Beneficial	To reduce risk behaviours	ECDC and EMCDDA, 2018b,c
Provision of HBV vaccination in prison	Provision of HBV vaccination in prison to reduce transmission	Beneficial	To reduce infectious diseases	ECDC and EMCDDA, 2018b, c
Provision of HBV, HCV and HIV treatment in prison	Provision of HCV and HIV treatment in prison to reduce transmission	Beneficial	To reduce infectious diseases	ECDC and EMCDDA, 2018b,c
Needle and syringe programmes	Needle and syringe programmes in prison to reduce HIV and HCV transmission via shared injection equipment	Likely to be beneficial	To reduce infectious diseases, to reduce risk behaviours	ECDC and EMCDDA, 2018b,c
Pre- and post-exposure prophylaxis for HIV	Pre- and post-exposure prophylaxis for HIV in prison to reduce HIV acquisition	Likely to be beneficial	To reduce infectious diseases	ECDC and EMCDDA, 2018b
Provision of condoms and lubricant	Provision of condoms and lubricant in prison to reduce sexual risk behaviours	Likely to be beneficial	To reduce risk behaviours	ECDC and EMCDDA, 2018b
Needle and syringe programmes	Needle and syringe programmes in prison to reduce injecting risk behaviours (sharing of injection equipment)	Unknown effectiveness	To reduce risk behaviours	ECDC and EMCDDA, 2018b
Pharmacological treatment	OST to reduce HIV and HCV in prison	Unknown effectiveness	To reduce infectious diseases	EMCDDA, 2010
Safe tattooing and body piercing programmes	Safe tattooing and body piercing programmes to reduce blood-borne virus transmission in prison	Unknown effectiveness	To reduce infectious diseases	ECDC and EMCDDA, 2018b

Evidence ratings are based on GRADE.
Source: Evidence database, EMCDDA Best Practice Portal.

ECDC and EMCDDA guidance on preventing blood-borne viruses in prison settings: key conclusions

The available scientific evidence, backed up by expert opinion, allows for the following key conclusions to be made:

Prevention
Offer a comprehensive package of preventive measures to people in prison that meet the same national standards as those recommended for community settings.

Evidence shows that also in prison settings, condoms and behavioural interventions promote safer sex.

Evidence shows that opioid substitution treatment reduces illicit opioid use and risks related to equipment sharing and, when continued on release, provides protection from death caused by overdose.

Evidence shows that the provision of clean drug injection equipment is possible in prison settings and can successfully contribute to a comprehensive programme to reduce blood-borne virus (BBV) transmission.

HBV vaccination
Offer HBV vaccination to people in prison with unknown or negative serology.

Evidence shows that using rapid schedules may result in a higher completion rate of the full schedule.

Testing for viral hepatitis and HIV
Actively offer BBV testing to all people in prison upon admission and throughout the time in prison.

Evidence shows that pro-active provision of BBV testing leads to a higher uptake; health promotion and peer education have been shown to increase HIV testing uptake.

Viral hepatitis and HIV treatment
Offer appropriate treatment to individuals diagnosed with HIV, HBV or HCV infection in prison settings, in line with the guidelines applied in the community and meeting the same provision standards as in the community.

Evidence shows that treatment of BBV infections is feasible and effective in prison.

Continuity of care
Actively support and ensure continuity of care between prison and community.

Evidence shows that release from prison is a key barrier to continuity and adherence to drug and infectious diseases treatment.

Evidence shows that collaboration and partnership between prison and community health-care services promote and facilitate uninterrupted care.

Evidence shows that active referral to external services improves treatment adherence.

Source: EMCDDA and ECDC, 2018b.

supports the use of OST to prevent transmission of infections among people who also use opioids during detention (ECDC and EMCDDA, 2018b), and another study links the high level of OST coverage in Scottish prisons with an observed reduced incidence of HCV infection in the prison population (Taylor et al., 2013). OST in prison is also relevant in tackling other health-related outcomes. However, studies inside prison are too few and insufficient to demonstrate its effectiveness in reducing seroconversion inside prison.

Vaccination

According to the WHO, vaccination is a life course intervention to be provided through all stages of life, including adulthood (WHO Europe, 2013). Prison may offer a suitable location where vaccination coverage may be increased among individuals belonging to deprived and socially marginalised groups and where specific groups at higher risk, such as people who inject drugs, may be targeted.

While evidence on vaccination interventions in prison settings is extremely limited, it indicates that providing vaccination against HBV to all individuals upon admission

into prison is beneficial (ECDC and EMCDDA, 2018b). Findings from a recent longitudinal study from Scotland suggest an association between the implementation of universal HBV vaccination in prison and an increasing level of coverage among people who inject drugs in the community (Palmateer et al., 2018). Hepatitis A virus vaccination, as already recommended in many EU/EEA countries (ECDC, 2016), could also be considered in prison settings for groups at high risk, such as people who use drugs and people who inject drugs, or with a high prevalence of hepatic disease (ECDC and EMCDDA, 2018b).

Other vaccinations are under consideration in some European countries. Vaccination against flu for people in prison and prison staff may be considered an important preventive measure to avoid outbreaks in this setting during the flu season, as recent grey literature from England emphasises (O'Moore et al., 2018). A tetanus vaccination booster may be specifically relevant for people who inject drugs, given the higher risk of percutaneous injuries while injecting drugs.

In the early phases of the COVID-19 epidemic, WHO immunisation experts recommended as part of a values framework for the allocation and prioritisation of COVID-19 vaccination (WHO, 2020) that social groups unable to physically distance, such as those in detention facilities, should be priority groups for COVID-19 vaccination. Subsequently, the European Commission has extended this recommendation to the EU Member States (European Commission, 2020).

Treatment of blood-borne infections

Existing evidence on treatment for HCV and HIV in prison is substantial and suggests that it is feasible and beneficial in this setting (ECDC and EMCDDA, 2018b; Vroling et al., 2018), whether it is self-administered or directly observed. Currently, no evidence has been identified on HBV treatment in prison settings (ECDC and EMCDDA, 2018b; Nakitanda et al., 2021).

Needle and syringe programmes

The implementation of prison-based needle and syringe programmes in Europe is very limited, with the existence of ongoing programmes reported in three European countries: Germany (one prison), Spain and Luxembourg (ECDC and EMCDDA, 2018b). The scientific literature assessing the health outcomes for prison-based needle and syringe programmes is still scarce (ECDC and EMCDDA, 2018b).

The strength of the evidence is too limited to demonstrate an effect on safe injecting practices; however, prison-based needle and syringe programmes are considered likely to be beneficial on the basis of reliable indirect evidence derived from community settings (Wiessing et al., 2014; EMCDDA, 2017; ECDC and EMCDDA, 2018b; Lazarus et al., 2018). The available evidence on the effectiveness of prison-based needle and syringe programmes suggests that this measure is likely to be beneficial in reducing blood-borne virus transmission among offenders who inject drugs (ECDC and EMCDDA, 2018b; Lazarus et al., 2018). Finally, existing evidence and anecdotal reports suggest a minimal risk of negative outcomes, such as increased violence, following the implementation of prison-based needle and syringe programmes (ECDC and EMCDDA, 2018b).

Continuity of care

As individuals transition from prison to the community, continuity of care is essential in order to avoid disrupting treatment for disease and to prevent disease relapse or drug-resistant mutations (ECDC and EMCDDA, 2018b). Evidence shows that release from prison is the single most important factor associated with discontinuing treatment, in particular for HCV infection (Aspinall et al., 2016; ECDC and EMCDDA, 2018b). A number of interventions have been reported in the literature to promote continuity of care post release, including proactive referral and provision of drug prescriptions (for drug- and non-drug-related problems) (ECDC and EMCDDA, 2018b). In addition, the recent EU-funded project 'My first 48 h out' investigated continuity of care, in prison and upon release, for people who have used drugs for a long time, and the provision of case management with a focus on four EU countries (Belgium, Germany, France and Portugal). While identifying a number of strategies developed at national level, the project report recognises a number of barriers perceived by people who use drugs and professionals working in prison and community services (Stöver et al., 2019).

Other prevention interventions

Evidence on more general blood-borne virus prevention interventions targeting people in prison is limited to a small number of measures such as distribution of condoms (Moazen et al., 2021), safe tattooing programmes and skills-building interventions. The available evidence is generally of low quality (ECDC and EMCDDA, 2018b). In the absence of prison-specific evidence on additional measures such as prevention of mother-to-child transmission, pre- or post-exposure prophylaxis and safe healthcare services, conclusive evidence derived

from community settings may be considered to support evidence-based interventions in the prison setting on the basis of the principle of equivalence of care (ECDC and EMCDDA, 2018b).

Prevention of post-release mortality among people who use drugs: key evidence in prison settings

Mortality post release is a major concern, particularly regarding people who inject opioids (see Chapter 3). High mortality rates in the months post release, peaking in the first 4 weeks, have been widely described in the literature (Farrell and Marsden, 2008; Binswanger et al., 2016). Effective prevention of drug-related deaths includes providing OST for people dependent on opioids during detention, ensuring continuity of care after release and providing overdose response training combined with take-home naloxone at the time of release (Table 6.3).

Opioid substitution treatment

Accumulating evidence from the literature suggests that uptake of OST while in prison and continuation post-release has a protective effect against drug-related deaths (Hedrich et al., 2012; ECDC and EMCDDA 2018b, 2018c). In particular, comparative studies show that uptake of OST during detention is associated with increased likelihood of continuation post-release, earlier enrolment in community services and reduced risk of relapse (ECDC and EMCDDA, 2018b). Two studies indicate that uptake of OST during detention was associated with a substantial reduction in all-cause mortality (75 %) and drug-related deaths (85 %) in the first month after release (Degenhardt et al., 2014; Marsden et al., 2017). Continuity of care for patients receiving OST after release is critical, as even short gaps in treatment may trigger relapse into illicit opioid use (ECDC and EMCDDA, 2018b, 2018c). In this context, ensuring appropriate referral to community services is of paramount importance (ECDC and EMCDDA, 2018b).

Provision of take-home naloxone at release

Naloxone is an effective opioid antagonist medication used to reverse respiratory depression caused by opioid overdose. Take-home naloxone programmes combine overdose training with the distribution of naloxone (as an injectable solution in ampoules or pre-filled syringes or as a nasal spray) to potential bystanders of overdoses. Take-home naloxone programmes have been shown to be protective against overdose deaths (EMCDDA, 2017; Horton et al., 2017; McDonald et al., 2017; Horsburgh, 2018). In particular, provision of take-home naloxone for people released from correctional settings has been shown to be feasible and acceptable (Bird et al., 2016; Horton et al., 2017; Parmar et al., 2017). Increased availability of naloxone through a nationwide take-home programme in Scotland has been linked to a reduction in overdose deaths after release (Bird et al., 2016). The wider availability of naloxone nasal spray may further increase acceptability and use (Mohammed et al., 2016; EMCDDA, 2016). An implementation guide for providing take-home naloxone at the time of release from prison has been developed in the framework of a project supported by the EU Justice Programme (Horsburgh, 2018).

TABLE 6.3
Overview of the evidence base on the effectiveness of drug-related interventions in prison for prevention of post-release mortality

Intervention	Details	Evidence rating	Desired outcomes	Reference
Pharmacological treatment	OST to reduce deaths in prison	Beneficial	To reduce mortality	Larney et al., 2014
Continuity of OST from prison to community	Continuity of OST from prison to community to reduce post-release mortality	Beneficial	To reduce mortality	ECDC and EMCDDA, 2018b,c Degenhardt et al., 2014 EMCDDA, 2010
Naloxone administration	Naloxone training and prescription to reduce opioid overdose mortality after release from prison	Likely to be beneficial	To reduce mortality	Bird et al., 2016

Evidence ratings are based on GRADE.
Source: Evidence database, EMCDDA Best Practice Portal.

Social reintegration: key evidence and evidence-based interventions

Policies and measures to support social reintegration form essential components of a comprehensive drugs strategy, and this is reflected in international and EU policy (EMCDDA, 2012). The success of social reintegration measures often relies on effective collaboration between different services, particularly when those measures are focused on people who are released from prison settings (Table 6.4). In particular, the EU-funded Throughcare project developed a dedicated toolkit to address throughcare services for offenders with problematic drug use (MacDonald et al., 2011). Such services are primarily concerned with assisting people in prison to prepare for release, helping them settle in the community and preventing reoffending.

It has been argued that a successful throughcare programme should be based on the general principle that care should be individualised and it should address four key areas of intervention, namely healthcare, family, finance and housing, and employment (MacDonald et al., 2011). The importance of individual-based assessments has been further reiterated by the recent ECDC and EMCDDA guidance, and it is supported by some evidence showing that individual case management is associated with better post-release outcomes, such as engagement with harm reduction services (ECDC and EMCDDA, 2018b, 2018c). A recent systematic review assessing re-entry programmes for people with problematic drug use and mental health disorders as they transition from prison to the community found that three main factors contributed to successful throughcare: the structural context, supportive relationships with staff, and continuity of care, including pre-release planning. Housing and employment were identified in all included studies as the most critical forms of practical support to reduce recidivism (Kendall et al., 2018). In contrast, targeted interventions such as skill-building vocational training for women in detention have been shown to have no clear benefits on employment outcomes and criminal recidivism (EMCDDA, 2012). However, research on interventions, including reintegration activities, for women with drug-related problems in prison is extremely scarce and there may have been changes in recent years.

Extended-release naltrexone

Used to prevent relapse in opioid-dependent individuals, extended-release naltrexone is a sustained-release monthly injectable formulation of the full mu-opioid

TABLE 6.4
Overview of the evidence base on the effectiveness of drug-related interventions in prison for social reintegration outcomes

Intervention	Details	Evidence rating	Desired outcome	Reference
Pharmacological treatment	OST (with methadone) in prison to increase post-incarceration community treatment engagement	Beneficial	Retain patients in treatment	Moore et al., 2019
Pharmacological treatment	OST (with methadone) in prison to reduce post-release illicit opioid use	Beneficial	To reduce substance use	Moore et al., 2019
Pharmacological treatment	OST (with methadone) in prison to reduce post-release injection drug use	Beneficial	To reduce substance use	Moore et al., 2019
Continuity of treatment from prison to community	Continuity of care to improve post-release behavioural outcomes	Likely to be beneficial	To retain patients in treatment	ECDC and EMCDDA, 2018b,c
Naltrexone administration	Naltrexone v. non-pharmacological treatment to reduce criminal activity (re-incarceration) in drug-using offenders	Likely to be beneficial	To reduce re-incarceration rates	Perry et al., 2015
Therapeutic communities	Therapeutic communities in prison to reduce re-incarceration rates and drug misuse relapse	Likely to be beneficial	To reduce re-incarceration rates; to reduce relapse	Galassi et al., 2015
Educational and vocational training interventions	Vocational training to develop skills on employment outcomes and reduce criminal recidivism	Unknown effectiveness	To improve employability; to reduce recidivism	EMCDDA, 2012
Pharmacological treatment	OST (with methadone) in prison to reduce recidivism after release	Unknown effectiveness	To reduce recidivism	Moore et al., 2019
Pharmacological treatment	Pharmacological v. non-pharmacological treatment to reduce use and criminal activity in drug-using offenders	Unknown effectiveness	To reduce re-incarceration rates	Perry et al., 2015

Evidence ratings are based on GRADE.
Source: Evidence database, EMCDDA Best Practice Portal.

EU-funded projects: Throughcare

The project Throughcare aimed to research existing approaches to throughcare and aftercare services for people with problematic drug use returning to the community from prison. It also aimed to explore people's needs for the services identified, with the main focus on women, young people, people from ethnic minorities and those with mental health issues. The project developed a toolkit to support countries in designing and implementing interventions for effective engagement and concerted action between prison authorities, community services and civil society to ensure continuity of care during transition from prison to the community. The toolkit is divided into sections to cover assessment of needs and planning to meet them, collaborative working practices, training and information needs, and monitoring. The toolkit is enriched by national case studies collected during the project.

Women in prison and the ROSE network in Italy

In Italy, women in prison constitute about 4-5 % of the prison population. This population subgroup is characterised by a prevalence of substance abuse, HIV, viral hepatitis and sexually transmitted infections often higher than that in the male prison population. In addition, a significant proportion of women in prison refuse treatment despite having considerable healthcare needs. To address this problem, in 2016 a multidisciplinary network was established within the Italian national society for prison health (SIMSPe): the RoSe network (sanitapenitenziaria.org) or Rete Donne SIMSPe, aiming to achieve full coverage of the Italian prison system and to include women and transgender populations. The purpose of the RoSe network is to collect relevant information of the health status and healthcare needs of women in detention in Italy, with the ultimate goal of engaging prison institutions and prison health services in delivering appropriate care for this vulnerable population, including enhancing screening, linkage to care and support for adhering to treatment.

receptor antagonist (Lee et al., 2016). While in general there is limited evidence, a 2018 systematic review of 34 studies found that providing extended-release naltrexone on release from prison, compared with providing non-pharmacological treatment, is likely to be beneficial in reducing re-incarceration in drug-using offenders (Perry et al., 2015).

Legal and structural contexts: key evidence and evidence-based interventions

The national legal and structural context has a major influence on prison and drug policies and their implementation in European countries, and currently there is much heterogeneity in the way in which evidence-based prison healthcare is integrated into national and local policies (and the way these policies are translated into practice). While this is a broad and relatively complex subject, only two approaches are presented here: alternatives to punishment and governance of health services in prison.

Alternatives to coercive sanctions

Diverting offenders with problem drug use towards rehabilitative measures and away from incarceration has a number of positive effects, such as avoiding the damaging effects of detention and contributing to reducing the costs of the prison system. It is also in line with the rehabilitative objective to stop the 'revolving door' of recidivism by a rationale other than deterrence (White, 2017). Under the EU drug strategy (2013-2020), alternatives to punishment are referred to as 'alternatives to coercive sanctions', and the state of play around Europe was reported in 2016 by a project funded by the European Commission (Kruithof et al., 2016). Although the expression 'alternatives to prison' is rather ambiguous and may refer to punitive or rehabilitative programmes outside prison, 'alternatives to coercive sanctions' are broadly defined as measures that have some rehabilitative element and are used instead of punishment. The measures covered range from attending a brief intervention instead of paying a fine, receiving a suspended sentence conditional on attending drug treatment or agreeing to undergo treatment in prison that shortens the incarceration period. They may also include responses that constitute non-intervention, such as deciding not to charge or prosecute (Kruithof et al., 2016).

Several different approaches to alternatives to coercive sanctions are implemented within the European Union, yet the evidence base for these programmes is limited, as few programme evaluations have been conducted. Evaluations that do exist have mostly had rather weak designs, and more robust evaluations have usually been conducted outside the region in a different context (EMCDDA, 2015; EMCDDA, 2017). The recent Commission-funded study concluded that the evidence favouring alternatives to coercive sanctions is promising but equivocal, as there are few studies of good quality.

Outcome evaluations have also been weak in this area, possibly because process evaluations, supported by the results of the study questionnaire, have shown there are several barriers to the use of alternatives to coercive sanctions in practice (Kruithof et al., 2016). These include lack of awareness of the existence of options for alternatives to coercive sanctions; members of the judiciary's personal beliefs about the effectiveness or otherwise of rehabilitative interventions; judicial performance monitoring systems not designed to treat non-punishment as an acceptable outcome; administrative factors such as lack of treatment resources, requirements for apparently onerous judicial monitoring of the treatment process, or lack of coordination between judicial and rehabilitative agencies; legislative factors that limit the number and type of offenders that may receive such alternatives; and contextual factors including a change in political or public mood towards drug-using offenders (Kruithof et al., 2016).

One of the most studied interventions in this area has been the drug courts. These are courts that specialise in dealing with drug-related offences and drug-dependent offenders. Their primary objective is to reduce offending behaviour and support reintegration by referring offenders to drug treatment (EMCDDA, 2012), while retaining the deterrent threat of administering a criminal sanction, including a prison sentence. The European Commission study (Kruithof et al., 2016) noted that drug courts are better described as mechanisms for offering alternatives to coercive sanctions rather than alternatives to coercive sanctions in their own right. Research shows that drug courts might be potentially effective in improving employment outcomes and reducing criminal recidivism (see Table 6.5). Although studies have questioned their efficiency when compared with other alternatives to coercive sanctions, drug courts are considered most cost-effective when dealing with the more problematic offenders.

Governance of prison healthcare services

In 2013, the WHO published guidance for policymakers advocating that the management and coordination of all relevant agencies and resources contributing to the health and well-being of people in prison should be a shared, i.e. whole-of-government, responsibility and that ministries of health should provide and be accountable for healthcare services in prison settings (WHO Europe, 2013). Since the end of the 1990s, governance of prison healthcare has been moved to ministries of health in a growing number of countries (see Chapter 4). Yet, obtaining evidence that this transition results in better prison healthcare is not easy. Mainly, this is due to a widespread lack of baseline health data and to methodological and implementation challenges linked to designing and conducting evaluations of such system-wide transfer processes (WHO Europe, 2013). Individual Member States have reported benefits such as improved resources and funding for key prison health issues, and the inclusion of people in prison in major public health initiatives (WHO Europe, 2013). Recent evidence from the region suggests an improvement in the performance of prison health services following their transfer to health ministries (Leaman et al., 2017). Furthermore, such transfers may favour the development of prison health indicators, service performance assessments and integration of prison health data into national health statistics (WHO Europe, 2013). A 2019 Council of Europe publication emphasises the need for this transfer of responsibilities as a way to enhance the implementation of the principle of equivalence of care for people in prison, although it is necessary to consider the potential difficulties and critical issues related to the transfer (Pont, 2019).

TABLE 6.5
Overview of the evidence base on the effectiveness of drug court programmes

Intervention	Details	Evidence rating	Desired outcome	Reference
Drug court programmes	Drug court programmes on employment-related outcomes (employed, enrolled in school, etc.)	Likely to be beneficial	To improve employability	EMCDDA, 2012
Drug court programmes	Drug court programmes to reduce recidivism	Likely to be beneficial	To reduce recidivism	Mitchell et al., 2012
Drug court programmes	Drug court programmes on employment outcomes (annual income)	Unknown effectiveness	To improve employability	EMCDDA, 2012

Evidence ratings are based on GRADE.
Source: Evidence database, EMCDDA Best Practice Portal.

Conclusions

Supporting quality improvement in prison healthcare and addressing equivalence of care requires transparency, high-quality data collection and performance monitoring (Leaman et al., 2017), all of which may contribute to a better understanding of the burden of disease within the prison population (and the related health needs) and create the basis for adequate resource allocation. Despite the accumulating evidence on healthcare interventions in prison settings, and the new initiatives mentioned above, important gaps exist. Notwithstanding the challenges of conducting research in prison settings, discussed at the start of the report, these gaps need to be addressed with more and better targeted studies to promote the adoption of evidence-based prison healthcare policies on a broader scale.

When it comes to researching healthcare provision in prison settings, innovative methodological approaches, tailored to the features of particular prison systems, would be extremely valuable. Many research studies on prison healthcare interventions are focused on limited and often poorly defined outcomes. While the body of evidence may be well developed in community settings, and reliable analogies could be drawn, the specificities of the prison environment need to be taken into account (Stone, 2018). This is also the case for research on behavioural interventions. Such challenges affect the process of evidence collation and synthesis, ultimately hampering the opportunities to use findings to inform policy.

The effectiveness of some interventions, including drug-free wings and prevention of drug use initiation in prison, has been little researched to date. Future efforts to fill this gap will need to adopt rigorous methodological approaches, including the identification and definition of relevant outcomes, in order to avoid the pitfalls highlighted above.

Although randomised clinical trials are considered the gold standard in health research, it is well recognised that this study design may not always be applicable or feasible. Other methodological approaches, such as cluster trials or well-designed comparative studies, may suffice to produce sound and reliable evidence to inform policy. Research projects would need to be designed thoroughly to address controversial issues such as the implementation of prison-based needle and syringe programmes. While this is a particularly sensitive topic, given the implications of illicit substance use in a prison environment, it would benefit from a comprehensive research approach to assess behavioural and health-related outcomes (e.g. infectious disease transmission), as well as operational aspects (e.g. syringe distribution, acceptability among staff).

In general, more operational research would be beneficial, as it could provide pragmatic indications of how interventions could be better implemented in prison settings. For example, it would be useful to investigate effective approaches for providing treatment and throughcare services. Again, such research should be oriented to achieve well-defined outcomes and describe operational aspects in sufficient detail.

Timeliness of research is important, in particular in the case of issues such as providing treatment for HCV with new direct-acting antiviral treatments in prison settings. While robust evidence could be derived from community settings on this specific topic, prison-based research is needed to prove the potential impact of certain interventions not only on the prison population but also on the wider community. A similar consideration could be given for the provision of take-home naloxone in the context of release from a correctional setting. Although its feasibility has been established, there is a need for rigorous research into the health outcomes and implementation of such programmes.

Understanding the costs of drug-related measures is important for both policy development and policy evaluation. However, the information available on drug-related public expenditure in Europe, at both local and national level, remains sparse and heterogeneous. Nevertheless, estimates suggest that less than 10 % of the prison budget is spent on healthcare, even though it is known that residential prison treatment reduces the costs associated with lost productivity due to imprisonment and is cost-effective, especially when offenders attend treatment post release (EMCDDA, 2014b; NIDA, 2014; Sridhar et al., 2018). The systematic and standardised collection of programme data on healthcare provision in prison settings could also contribute to addressing research gaps. Such data would be a major source of information for comparing the potential costs and benefits of healthcare interventions, ultimately supporting informed and evidence-based decision-making and resource allocation.

Information presented in this chapter shows that over the past decade high-quality research assessing the effectiveness of harm reduction interventions in prison settings has remained scarce while, during the same period, research in community settings strongly consolidated the knowledge about the effectiveness of these interventions. Therefore, the validity of effective interventions in prison settings should be considered in view of the need to give people in prison standards of care

equivalent those provided for people in the community. Furthermore, as prison health is public health, investment in prison health yields a health dividend beyond prison walls.

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Appendix

TABLE 6.6

Evidence for the effectiveness of drug-related interventions in prison settings

Intervention	Details	Summary of findings	Evidence rating	Desired outcome	Reference
Continuity of OST from prison to community	Continuity of OST from prison to community to reduce post-release mortality	OST was found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in reducing post-release mortality. One cohort study (Degenhardt et al., 2014) enrolling 16 453 people released from prison 60 161 times (all opioid-dependent people who entered OST between 1985 and 2010 and were released from prison at least once between 2000 and 2012 in Australia) showed that those continuously retained in OST after being released from prison (continuity of care) had their risk of mortality reduced by 75 % (adjusted HR 0.25, 95 % CI 0.12 to 0.53). One RCT (Dolan et al., 2005) suggests that retention in MMT in prison settings is associated with reduced mortality from all causes (OR 0.54, 95 % CI 0.20 to 1.43) and reduced mortality from overdose.	Beneficial	To reduce mortality	ECDC and EMCDDA (2018b,c) Degenhardt et al. (2014) EMCDDA (2010)
HBV, HCV and HIV testing upon admission to prison	HBV, HCV and HIV testing upon admission to prison to reduce transmission	HBV, HCV and HIV testing upon admission and of all people in prison was found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in reducing HIV transmission. The evidence suggests that provider-initiated strategies for HIV testing yield a higher uptake than prisoner-initiated strategies.	Beneficial	To reduce infectious diseases	ECDC and EMCDDA (2018a,b)
Health promotion and peer education on blood-borne virus testing	Health promotion and peer education to increase uptake of blood-borne virus testing in prison	Health promotion and peer education on blood-borne virus testing were found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in increasing uptake of blood-borne virus testing in prison.	Beneficial	To reduce infectious diseases	ECDC and EMCDDA (2018a)
Pharmacological treatment	OST to reduce deaths in prison	One cohort study (Larney et al., 2014) enrolling 16 715 opioid-dependent people who were in prison between 2000 and 2012 showed that being in OST was associated with: • a 74 % lower hazard of dying in prison (adjusted HR 0.26; 95 % CI 0.13 to 0.50) compared with time not in OST • an 87 % lower hazard of unnatural death (adjusted HR 0.13; 95 % CI 0.05 to 0.35), compared with time not in OST • a 94 % lower all-cause mortality hazard during the first 4 weeks of incarceration (adjusted HR 0.06; 95 % CI 0.01 to 0.48), compared with time not in OST • a 93 % lower hazard of unnatural death during the first 4 weeks of incarceration (adjusted HR 0.07; 95 % CI 0.01 to 0.59), compared with time not in OST.	Beneficial	To reduce mortality	Larney et al. (2014)
Pharmacological treatment	OST to reduce injecting risk behaviour in prison	OST provided in a prison setting was found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in reducing injecting risk behaviour.	Beneficial	To reduce risk behaviours	ECDC and EMCDDA (2018b,c)
Pharmacological treatment	OST to reduce substance use in prison	OST was found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in reducing substance use in prison.	Beneficial	To reduce substance use	ECDC and EMCDDA (2018b,c)

Intervention	Details	Summary of findings	Evidence rating	Desired outcome	Reference
Pharmacological treatment	OST (with methadone) in prison to increase engagement with post-incarceration community treatment	OST with methadone provided during incarceration was found in a systematic review (Moore et al., 2019) to be effective in increasing engagement with community treatment after release from prison (3 studies, *n* = 216, OR 8.96, 95 % CI 2.46 to 30.75).	Beneficial	To retain patients in treatment	Moore et al. (2019)
Pharmacological treatment	OST (with methadone) in prison to reduce post-release illicit opioid use	OST with methadone provided during incarceration was found in a systematic review (Moore et al., 2019) to be effective in reducing post-incarceration illicit opioid use (4 studies, *n* = 407, OR 0.22, 95 % CI 0.15 to 0.32).	Beneficial	To reduce substance use	Moore et al. (2019)
Pharmacological treatment	OST (with methadone) in prison to reduce post-release injection drug use	OST with methadone provided during incarceration was found in a systematic review (Moore et al., 2019) to be effective in reducing post-incarceration injection drug use (3 studies, OR 0.26, 95 % CI 0.12 to 0.56).	Beneficial	To reduce substance use	Moore et al. (2019)
Provision of HBV vaccination in prison	Provision of HBV vaccination in prison to reduce transmission	Provision of HBV vaccination with unknown or negative serology was found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in reducing HBV transmission in prison.	Beneficial	To reduce infectious diseases	ECDC and EMCDDA (2018c)
Provision of HBV, HCV and HIV treatment in prison	Provision of HBV, HCV and HIV treatment in prison to reduce transmission	Provision of HBV, HCV and HIV treatment in prison was found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in reducing HBV, HCV and HIV transmission.	Beneficial	To reduce infectious diseases	ECDC and EMCDDA (2018c)
Continuity of treatment from prison to community	Continuity of care to improve post-release behavioural outcomes	Continuity of care between prison and community was found in a systematic review (ECDC and EMCDDA, 2018c) to have some effect in improving retention in drug treatment and improving adherence to HIV and HCV treatment.	Likely to be beneficial	To retain patients in treatment	ECDC and EMCDDA (2018b,c)
Drug court programmes	Drug court programmes on employment-related outcomes	Drug court programmes were found to be effective in one cohort study (Rossman et al., 2011, *n* = 1 781): • drug courts participants at 18 months were significantly less likely than comparison offenders to report a need for employment (27 % v. 42%), educational services (25 % v. 36 %) and financial assistance (28 % v. 44 %) • drug courts participants were significantly more likely than comparison members to be enrolled in school at 6 months (16 % v. 8 %) and slightly more likely to be employed or in school at 18 months (66 % v. 60%).	Likely to be beneficial	To improve employability	EMCDDA (2012)
Drug court programmes	Drug court programmes to reduce recidivism	Drug court programmes were found to be effective in a systematic review (Mitchell et al., 2012, 154 studies) in: • reducing recidivism at 3 years' follow-up for adult drug courts (3 studies; mean effect size analogous to a drop in recidivism from 50 % for non-participants to approximately 38 % for participants) • reducing recidivism for drunk driving drug courts (4 studies; 3 found sizeable reductions in recidivism; 1 experimental evaluation found a negative effect) • reducing recidivism for juvenile drug courts albeit with a smaller effect size (mean effect size analogous to a drop in recidivism from 50 % for non-participants to roughly 43.5 % for participants).	Likely to be beneficial	To reduce recidivism	Mitchell et al. (2012)

Intervention	Details	Summary of findings	Evidence rating	Desired outcome	Reference
Naloxone administration	Naloxone training and prescription to reduce opioid overdose mortality after release from prison	Brief training and standardised naloxone supply for individuals at risk of opioid overdose in prison was found to be effective in a pre-post evaluation of a national policy (Bird et al., 2016) in reducing by 36 % the proportion of opioid-related deaths that occurred in the 4 weeks following release from prison (from 9.8 % of 193/1 970 in 2006-2010 to 6.3 % of 76/1 212 in 2011-2013).	Likely to be beneficial	To reduce mortality	Bird et al. (2016)
Naltrexone administration	Naltrexone v. non-pharmacological treatment to reduce criminal activity (re-incarceration) in drug-using offenders	Naltrexone (antagonist pharmacological treatment for relapse prevention) was found in a systematic review (Perry et al., 2015) to be effective in reducing criminal activity, i.e. re-incarceration rates (2 studies, $n = 114$, RR 0.40, 95 % CI 0.21 to 0.74).	Likely to be beneficial	To reduce re-incarceration rates	Perry et al. (2015)
Needle and syringe programmes	Needle and syringe programmes in prison to reduce HIV and HCV	Needle and syringe programmes implemented in prison were found in a systematic review (to be effective in reducing HIV transmission among people who inject drugs and reducing HCV transmission among people who inject drugs.	Likely to be beneficial	To reduce infectious diseases; to reduce risk behaviours	ECDC and EMCDDA (2018c)
Pre- and post-exposure prophylaxis of HIV	Pre- and post -exposure prophylaxis of HIV in prison to reduce HIV acquisition	Pre- and post-exposure prophylaxis of HIV were found in a systematic review (ECDC and EMCDDA, 2018c) to be effective in reducing HIV transmission in prison.	Likely to be beneficial	To reduce infectious diseases	ECDC and EMCDDA (2018c)
Provision of condoms and lubricant	Provision of condoms and lubricant in prison to reduce sexual risk behaviours	Provision of condoms and lubricant in prison was found in a systematic review (ECDC and EMCDDA, 2018c) to have some effect in reducing sexual risk behaviours.	Likely to be beneficial	To reduce risk behaviours	ECDC and EMCDDA (2018c)
Therapeutic communities	Therapeutic communities in prison to reduce re-incarceration rates and drug misuse relapse	Therapeutic communities in prison (including aftercare or transitional programmes and drug-free wings) were found in a systematic review without meta-analysis (Galassi et al., 2015, 14 studies, $n = 8\,245$) to be more effective than control conditions in reducing re-incarceration rates (5/7 studies found significant results) and reducing or preventing drug misuses relapse (7/9 studies found positive results).	Likely to be beneficial	To reduce re-incarceration rates; to reduce relapses	Galassi et al. (2015)
Drug court programmes	Drug court programmes on employment outcomes	Drug court programmes showed no differences in one cohort study ($n = 1\,781$; Rossman et al., 2011, cited in EMCDDA, 2012, online appendix): drug court programme participants had higher average annual incomes; however, differences were modest in magnitude and not statistically significant ($p < 0.10$).	Unknown effectiveness	To improve employability	EMCDDA (2012)
Educational and vocational training interventions	Vocational training to develop skills on employment outcomes and criminal recidivism	A drug treatment alternative-to-prison (DTAP) programme, focusing on vocational training and job skills development, showed no evidence of effectiveness in one secondary analysis of client records ($n = 406$; Sung, 2011): of DTAP graduates, 52 % met with the job developer for employment counselling and 40 % were placed on jobs with the assistance of the DTAP job developer; 4 % (4) of the 93 graduates for whom data were available accepted employment offers from participating members of the business advisory council; and the results of data analysis show that improved employment rates prevented post-treatment criminal recidivism among DTAP graduates.	Unknown effectiveness	to improve employability, to reduce recidivism	EMCDDA (2012)

Intervention	Details	Summary of findings	Evidence rating	Desired outcome	Reference
Needle and syringe programmes	Needle and syringe programmes in prison to reduce injecting risk behaviours	Needle and syringe programmes were analysed in a systematic review (ECDC and EMCDDA, 2018c) and showed no significant effect in reducing injecting risk behaviours in prison.	Unknown effectiveness	To reduce risk behaviours	ECDC and EMCDDA (2018c)
Pharmacological treatment	OST to reduce HIV and HCV in prison	One systematic review (Gowing et al., 2008) without meta-analysis did not find sufficient evidence to draw conclusions about the effect of OST on HIV seroconversion in prison settings. Data from one RCT (Dolan et al., 2003) in a jurisdiction with low HIV prevalence found no difference in HIV incidence between those receiving MMT and controls (n = 382, RR 1.09, 95 % CI 0.30 to 4.01). One narrative review (Stallwitz et al., 2007) found no evidence to either support or discount the effectiveness of OST with respect to HCV transmission in prison settings.	Unknown effectiveness	To reduce infectious diseases	EMCDDA (2010)
Pharmacological treatment	Pharmacological v. non-pharmacological treatment to reduce use and criminal activity in drug-using offenders	Agonist pharmacological treatments for drug-using offenders were found in a systematic review (Perry et al., 2015) to have no different effect than non-pharmacological interventions in reducing: • measured drug use (2 studies, n = 237, RR 0.72, 95 % CI 0.51 to 1.00) • self-reported drug use (3 studies, n = 317, RR 0.61, 95 % CI 0.31 to1.18) • arrests (1 study, n = 62, RR 0.60, 95 % CI 0.32 to 1.14) • re-incarceration (3 studies, n = 472, RR 0.77, 95 % CI 0.36 to 1.64). Antagonist pharmacological treatments (naltrexone) were found in the same review (Perry et al., 2015) to also have no different effect than non-pharmacological interventions in reducing measured drug use (1 study, n = 63, RR 0.69, 95 % CI 0.28 to 1.70). When comparing the drugs there were no significant differences between comparisons (methadone versus buprenorphine, diamorphine and naltrexone) on any of the outcome measures.	Unknown effectiveness	To reduce substance use; to reduce re-incarceration rates	Perry et al. (2015)
Pharmacological treatment	OST (with methadone) in prison to reduce recidivism after release	OST with methadone provided during incarceration was found in a systematic review (Moore et al., 2019) to have no significant effect in reducing recidivism (4 studies, n = 400, OR 0.93, 95 % CI 0.51 to 1.68).	Unknown effectiveness	To reduce recidivism	Moore et al. (2019)
Safe tattooing and body piercing programmes	Safe tattooing and body piercing programmes to reduce blood-borne virus transmission in prison	A systematic review of a small number of studies assessing the acceptance and feasibility of safe tattooing and body piercing programmes in prison (ECDC and EMCDDA, 2018c) suggests these bear no significant effect in reducing blood-borne virus infections, but more investigation is needed.	Unknown effectiveness	To reduce infectious diseases	ECDC and EMCDDA (2018c)

Evidence ratings are based on GRADE.
CI, confidence interval; HR, hazard ratio; MMT, methadone maintenance treatment; OR, odds ratio; RCT, randomised controlled trial; RR, relative risk.
Source: Evidence database, EMCDDA Best Practice Portal.

7

CHAPTER 7

Supply of drugs in prison

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This chapter focuses on the supply of drugs in European prisons. It describes how drug markets operate inside prison and the main supply chains. It also presents the main supply reduction measures implemented in European countries, with a particular focus on drug testing in prison.

Dealing drugs in prison

Understanding why people become involved in drug dealing in prisons is important if drug supply in prison is to be tackled. The reasons reported often relate to efforts to maintain access to a supply for personal use by sharing and swapping drugs. Supplying drugs also allows people in prison (whether or not they use drugs) to generate the income needed to make prison life more comfortable, to support partners and family or simply to make a profit. Coercion is also reported.

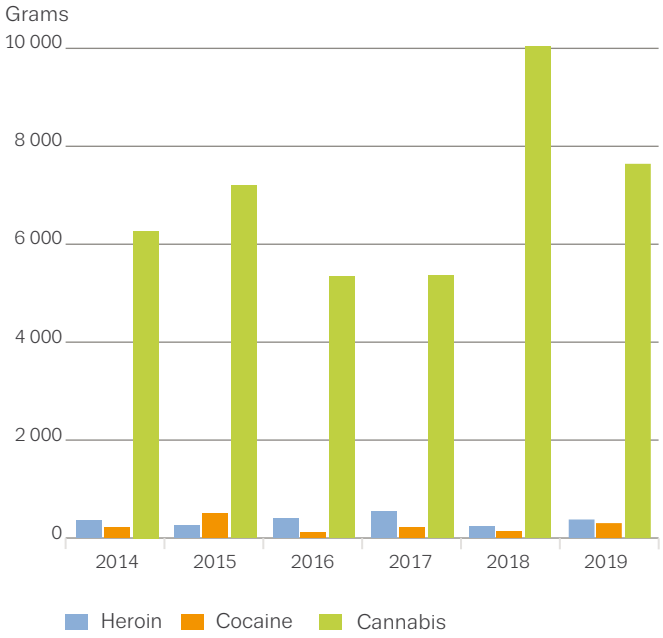
Prohibited commodities fetch higher prices in prison than in non-prison environments. The profit that can be generated by drug sales in prisons is reported to be up to four times greater than that in the community (Crewe, 2006). Some drugs, such as new psychoactive substances, may offer an even greater profit margin. In the United Kingdom, several studies report that the cost of new psychoactive substances in prison can be much higher than their cost outside prison, even as much as 30 times (CSJ, 2015; Ralphs et al., 2017). Such inflated profit margins are likely to have attracted the attention and increased the involvement of organised crime groups in servicing prison drug markets. A few countries have also reported cases in which people are believed to have deliberately breached their (parole) licence in order to take advantage of the high profits afforded by supplying drugs in prison (EMCDDA, 2018).

Drugs seized in prison

Evidence on the types, amounts and availability of drugs in prison is scarce. Although no overall European data on drug seizures inside prison are available, there is some information at national level. For example, in 2017 in England and Wales, according to prison services data provided to the British media (BBC News, 2018), drugs were found 13 119 times in prisons; in Spain over 4 700 seizures were reported. The most commonly seized drug in general in European countries is cannabis; this is consistent with the epidemiological data available from national surveys on drug use among people in prison.

FIGURE 7.1

Drugs seized in Portuguese prisons: trends in quantities seized, 2014-2019



Source: EMCDDA Reitox monitoring data.

Another example is Portugal, where data on seizures inside prison are available. Data for 2014-2019 on the quantities seized inside prison reported by the Portuguese prison directorate show no clear trends in seizures of cannabis, cocaine or heroin (Figure 7.1). Changes reported in the quantities of drugs seized may, however, reflect fluctuations in the availability of drugs inside prison, drug prevalence inside and outside prison, supply reduction interventions in prison, the number and type of people imprisoned and their related patterns of drug use, and other unknown factors.

Drug supply to prison: main routes and methods

Contraband is part of daily life in prisons, even if considerable effort is needed to breach prison security. There are six main routes to taking illicit drugs into prison (Blakey, 2008), many of which are similar to those used to smuggle other goods (such as mobile phones): external visits; postage; prison staff; over prison walls; people entering or returning to prison; and new technologies.

Information about which routes are most commonly used is not provided by prison services, but it may be inferred to some extent from supplies that are intercepted or routes that are disrupted.

Technological advances over the last decade have affected how drugs are transported into prison. For example, rather than simply throwing drugs over prison walls, drones have been used to carry items into prison grounds. Different routes may be used simultaneously, and in combination, in order to prevent detection and maintain supply. New technologies are also put to use in efforts to restrict supply, such as the introduction of new scanning technology to examine the contents of post.

External visits

It is important that people in prison maintain their social support networks through regular contact with family and friends (by phone, post or visits). People in prison are therefore routinely allowed social visits in most prison systems. Research has shown how visits can be used to take illicit drugs into prison to be used, sold or exchanged for other goods and services (Penfold et al., 2005; Tompkins, 2016; EMCDDA, 2018; Trestman and Wall, 2018). In some cases, drugs are wrapped in small packages and concealed internally, in clothing or in other goods (Figure 7.2); the packages are passed to the person in prison either mouth to mouth or concealed in items (e.g. food and drink). The person in prison will have to conceal the package internally to avoid detection on a post-visit search. Specific supply methods for smuggling synthetic cannabinoids and synthetic opioids are reported: these substances can be easily dissolved in a solvent, such as acetone, and can be sprayed onto paper and tobacco or impregnated into textiles (Ford and Berg, 2018).

Many prisons have surveillance and prevention strategies in place that seek to deter visitors from taking illicit goods into prisons and people from putting pressure on family and friends to do so. The opportunities to receive drugs through visits vary across countries, but also within the same country different prisons can have different rules and procedures regulating social visits. For example, some prisons have strict limits on what people can receive from visitors, and all items are routinely scanned; others may have fewer restrictions and no scanning. The level of risk attached to individuals will also influence the security measures surrounding their visits: high-risk people may not be allowed direct contact with visitors or to receive items. Measures tightening the security surrounding social visits include the use of low-level fixed furniture in visiting rooms (allowing for better control of interactions), video surveillance, drug detection dogs and, where appropriate, imposing closed visits or visitor bans (Wheatley, 2016; Trestman and Wall, 2018).

FIGURE 7.2
Drugs concealed in footwear, seized during an external visit

Source: Italian Penitentiary Department, Prison Office for Inspection and Control.

Postage

People in prison often report receiving drugs in parcels or letters (Penfold et al., 2005; Tompkins, 2016; EMCDDA, 2018; Trestman and Wall, 2018). There are many ways to conceal drugs in prison post, including under stamps, in envelope flaps and sprayed on to letters; between the pages of books or magazines; and concealed in clothing or other items posted.

Only small amounts of particular types of drugs can be smuggled in this way. Some drugs, such as cannabis, are too bulky to conceal in post but others, such as new psychoactive substances, lend themselves to this method of importation (Ralphs et al., 2017; EMCDDA, 2018). A number of countries, including Germany, Lithuania, Hungary, Poland, Finland, Sweden and the United Kingdom, have reported detecting postal packages and letters sprayed with new psychoactive substances sent to people in prison in their jurisdictions. This method carries particular health risks, as it is prone to the occurrence of so-called 'hot spots', that is, areas of the paper containing a high concentration of the active compound, which are linked to an elevated risk of overdose. It has prompted some prisons across the United Kingdom to provide people with photocopies rather than the original letters sent to them (Allison and Hattenstone, 2018).

Staff

There is a wide range of staff working in prison, performing different tasks and belonging to different professional groups (officers, health staff, education staff, and so on); some become involved in trafficking drugs into prison (EMCDDA, 2018; Trestman and Wall, 2018). Often the motivation is personal financial gain, but it may also be driven by coercion or blackmail; once a member of staff has been persuaded or coerced into taking any contraband to prison, they become vulnerable to blackmail and may find it difficult to stop their involvement. A freedom of information request by the British press found that between 2011 and 2017, 341 prison staff in England and Wales had been dismissed, excluded, convicted or cautioned by police for contraband in drugs, mobile phones and weapons (Yeung, 2018). Very limited information is available for other countries. Among the potential contributing factors rendering prison staff vulnerable to corruption are a lack of appropriate training and pressures arising from staff cuts (Yeung, 2018; Trestman and Wall, 2018). It has been argued that large amounts of drugs can be brought into prison in this way (Crewe, 2006).

The use of external subcontractors has also been identified as an enabler for the supply of drugs in prison: cleaning companies, waste disposal trucks and canteen suppliers have been reported by countries as sources of supply. Distribution through the prison canteen was reported as a common route: pre-sealed food packages, such as coffee, instant noodles or crackers, may be used to conceal drugs (EMCDDA, 2018). Some prisons have reacted by allowing only approved suppliers and vendors of items to people in prison to be used (Wheatley, 2016).

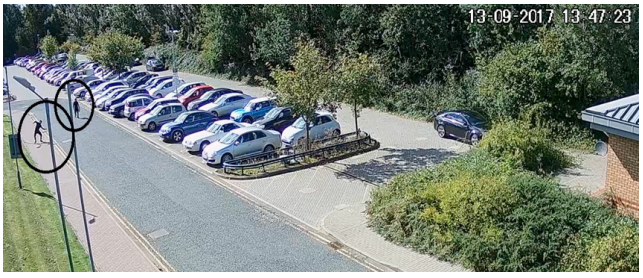
Over the prison walls

Drugs can be thrown over the prison walls, but this method is largely dependent on the prison design and its location (Figure 7.3). When thrown over the walls, drugs may be concealed in various ways, including inside tennis balls, dead animals such as birds or rats, or other objects (The Economist, 2013; BBC News, 2019). New technology allows for more sophisticated means: drones, for instance, are widely available and have been used to smuggle drugs, mobile phones and other goods over the perimeter fences or walls of prisons (EMCDDA, 2018; Trestman and Wall, 2018). Several measures may be used to counteract drug supply over prison walls, including the use of high fences and nets, as well as restricting the access of people in prison to the inner periphery of the prison.

People returning to prison

There is a constant turnover of people in prison, with many people entering prison, or re-entering after court visits or periods of release. Before entering prison, people may conceal drugs internally, rendering them hard to detect. Drug-using offenders wishing to have a supply of drugs for their initial days in prison, either to cope with withdrawal or to trade for other items, frequently undertake this practice. Non-users may also take drugs into prison to secure a source of income (Penfold et al., 2005; Tompkins, 2016).

FIGURE 7.3
People throwing objects over a prison wall



Source: Stewart (Sam) MacLeod.

In England, the large profits afforded by the sale of synthetic cannabinoids in prison is reported to have prompted the deliberate use of licence recall to smuggle these drugs into prison (Ralphs et al., 2017). English policy stipulated that individuals who have served more than 1 day in prison may be released on a minimum 12-month licence or parole with certain associated conditions. Offenders who break the terms of the licence or commit another offence during this period can be recalled to serve further time in custody. In some instances, it has been reported that offenders released on licence concealed synthetic cannabinoids in their bodies and intentionally broke the terms of the licence to be taken back to prison to sell them. Most prison systems will have their own set of operational procedures aimed at detecting drugs upon entry (see the section 'Tackling drug supply' for more detail on possible responses).

New technologies

The use of drones to take illicit drugs into prison has already been mentioned. Drones use radio frequencies produced by a standard mobile phone. The use of drones in supplying drugs to prison requires good organisation and coordination between people in prison and those outside, for example using diversionary tactics to breach the perimeter security. This route often carries a high risk of detection because of video surveillance focusing on the prison perimeter and other routine security checks in place (Figure 7.4). Anti-drone technology that interferes with the drone signals may also be used: there are a variety of methods available ranging from simple to highly technical solutions, yet little is known about their effectiveness (Hegranes, 2018).

FIGURE 7.4
A drone seized in prison grounds

Source: Stewart (Sam) MacLeod.

Very small mobile phones manufactured with nanotechnology are a concern for prison services, as they are easy to hide and smuggle into prison. Mobile phones are important for contacting outside partners in managing drug supply in prison (EMCDDA and Europol, 2019).

Drug distribution inside prison: mechanisms and actors involved

Drug trade in prison

Getting drugs into prison is only one step in the supply chain. The next one is navigating the distribution systems inside prison walls (Dillon, 2001; Penfold et al., 2005; Crewe, 2006; Tompkins, 2016). There are several ways through which the prison drug market can operate, and these are affected by the actors involved (those supplying, distributing, selling and buying drugs) but also by the particular structure, regime and physical environment of the prison itself. Drug distribution is a dynamic process that can adapt and change in response to these influencing factors.

Networks, often established between people in prison who knew each other before imprisonment, are an integral part of the supply chain. Several studies describe how a degree of reciprocity, that is, gifting or sharing drugs with others, is a feature of prison markets. This is primarily, however, an effort to ensure the establishment of a network of people who use drugs on whom one can draw if the supply dries up or becomes scarce (Turnbull and Stimson, 1994; Dillon, 2001; Penfold et al., 2005; Crewe, 2006; Mjåland, 2014). It has been argued that sharing is a very effective form of drug supply because there is a strong obligation to reciprocate once a person in prison accepts drugs gifted by another. Gender-specific differences are reported in the supply of drugs into prison: a recent study in Germany found that there were fewer organised structures for drug trafficking in women's prisons, but reciprocity still played an important role.

Substitution medications are sometimes diverted to and trafficked inside prison, either by the people supposed to take the medication who conceal it and re-sell it inside prison or by using goods, such as fruit, injected with methadone.

Drugs can be directly traded in prison for money or other goods and services, but exchanges between buyer and

Roles and actors in the supply and distribution of drugs in prison

Prison supplier: an outsider who systematically supplies drugs to prison. These can be established individual drug suppliers based in the community, or organised crime groups.

Importer: a person who takes drugs into prison. Importers can be prison visitors, staff, friends and family of the people in prison, or people new to prison or re-entering prison.

Seller: an insider who sells or trades drugs. Sellers can be prison dealers with larger supplies and a range of importation sources or user-sellers with limited supplies and fewer sources.

Runner: an insider who moves drugs and goods around the prison, enabling transactions, most often a person in prison.

User-sharer: a person in prison with limited individual supplies entering into reciprocal sharing of drugs with other people in prison.

seller may also be mediated through a third party inside prison who receives payment in drugs (Crewe, 2006). More unusual is external mediation, whereby the supplier and the purchaser have a third party outside prison through whom they organise payment in the community. This is a useful mechanism for the seller, as money has limited use inside a prison (Penfold et al., 2005), and for the buyer, as gaining access to resources to pay for drugs in prison may be difficult.

There are a number of people involved in the supply and distribution of drugs in prisons (see box 'Roles and actors in the supply and distribution of drugs in prison').

Actors involved in drug trafficking inside prison can be large-scale suppliers, dealers or members of organised crime groups. Some are continuing the business they ran before imprisonment, while others take advantage of the circumstances in which they find themselves and trade their own small supplies.

The available data suggest that there is rarely one source of drugs or one main dealer exercising control over the prison market. This is partly due to the mostly transient nature of the prison population (Penfold et al., 2005). In addition, relying on one source in prison may be a high-risk strategy given the level of security and the potential for detection. Therefore different levels of the market can operate simultaneously in order to sustain supplies in prison (Crewe, 2006; Mjåland, 2014; Tompkins, 2016).

Drug supply in the community is often described variously as hierarchical, horizontal or disorganised. Hierarchical supply describes a classic pyramidal structure, with a main dealer at the top, a number of mid-level dealers and a large number of low-level sellers or runners within a specific market or geographical area (Hough and Natarajan, 2000). Horizontal supply is characterised by a large number of financial transactions, drug exchanges and connected networks organised around a small number of key personnel (Pearson and Hobbs, 2003). The third type, disorganised, refers to small, flexible networks and partnerships of free-trading entrepreneurs (Reuter and Haaga, 1989). Recent developments, probably triggered by the rise of the internet and other factors such as globalisation, suggest that drug markets are becoming more 'disorganised', with increasing numbers of actors and entrepreneurs at all levels (EMCDDA and Europol, 2016, 2019).

In prison, different types of drug markets often co-exist and operate largely independently of each other (Penfold et al., 2005; Crewe, 2006; Tompkins, 2016). Taking the three levels of drug markets described above, in prison the low level includes mutual supply among people who use drugs — an important practice within the prison environment (Penfold et al., 2005; Crewe, 2006; Mjåland, 2014; Tompkins, 2016). Various methods are used to exchange drugs between people in prison. In France, for instance, walks and 'yoyos' (i.e. exchange through windows between people housed on different floors) are two of the preferred methods for exchanging substances (Chantraine, 2004). Mid-level dealing has been described as a way to make prison life more comfortable as well as maintaining individual user-dealers' access to drugs: drugs are exchanged for other goods and services such as cigarettes, food, toiletries, haircuts and clothing. Goods and services are the currency of choice, as cash has limited value within prison walls.

While low- and mid-level dealers in prison make use of resourceful skills and entrepreneurial methods, high-level dealing requires a greater degree of organisation, contacts and resources. Because they were often dealers in the community, high-level dealers have the contacts and resources required to ensure a continuous supply of larger quantities of drugs into a prison, through either social visits or other routes. In addition to networks that extend outside the prison, this level of dealing often involves the use of mobile phones smuggled into prison and the employment

of a number of people. High-level dealers pay other people in prison, usually in drugs or goods, to receive drugs on visits, hold drugs in their cells or elsewhere, make deliveries and collections, provide protection and 'collect' debts in much the same way that they operate in the community.

Transactions, payments and violence

How to initiate and complete a transaction to purchase drugs inside prison may be dependent on various factors, including length of time in prison, extent of existing network of contacts, and availability of financial resources. For example, dealers need to secure suppliers, establish contact with buyers, negotiate deals, resource and arrange for payment, and organise transactions (with either suppliers or buyers). Each transaction with a new actor will demand careful organisation; subsequent ones will often require less effort. For the most part, however, dealers or sellers and buyers already know each other or will be introduced through a common acquaintance (Penfold et al., 2005; Tompkins, 2016).

The exchange of or payment for drugs can occur in various places and settings within a prison, including canteens while queuing for food, the gym, multi-faith chapels and prayer rooms, prison workshops, by cell doors, in education settings, during association (i.e. when people in prison can move around the common areas and socialise with each other) or during visits (Penfold et al., 2005).

The role played by people in prison trusted by officers with prison work (e.g. serving food, cleaning, or working in the kitchen or the laundry), as well as of staff monitoring people in prison during external visits, is reported to be essential to the success of drug transactions. Often these trusted people in prison are able to move freely around the prison facilities and may thus act as runners; they may deliver drugs and take payment, conduct transactions at cell doors when other people in prison are not allowed out, and enable the movement of drugs between different wings and parts of the prison (Penfold et al., 2005; Crewe, 2006; Tompkins, 2016).

In Spain, people in prison are reported to make use of a post office immediate transfer system to pay for drugs in prison. The immediate transfer system, called *giro,* allows any person at any post office to transfer money in few minutes to any other person, who can collect it at any post office in the country. Using this system, the drug dealer provides the buyer with the name of the person collecting the *giro* payment; the buyer forwards the contact details (along with the amount to be transferred) to a relative or friend outside who goes to the post office to transfer the stipulated amount. A similar system is in place in France, involving prepayment via credit card or telephone (Protais and Jauffret-Roustide, 2019).

As with many other illegal markets, there is a level of threatened and actual violence in drug dealing in prison (Crewe, 2006). But, unlike settings in the community, prisons are closed punitive environments that lend themselves to the rapid escalation of violence; small disputes may easily turn into serious confrontations with severe consequences. The prison environment may also distort the market; for instance, there is a lack of opportunity to raise resources, there is a higher risk of detection attached to drug supply and distribution, and demand may suddenly outstrip supply. Tensions may arise from the need or desire to have drugs, the lack of resources to pay for them or the accumulation of debt. The recent rise in the use of new psychoactive substances in some prisons across Europe has led to concerns about how these substances may contribute to prison violence, not only through increased violent behaviour when under the influence, but also on account of the high profits that they can generate (Ralphs et al., 2017). The profit margin of new psychoactive substances in prison is of such a scale that organised crime groups have become closely involved in this segment of the prison drug market (EMCDDA, 2018).

Tackling drug supply

Tackling drug supply in prison is a difficult task (Trestman and Wall, 2018). There are a range of supply reduction interventions currently in place in prisons across Europe that seek to detect, deter and disrupt drug supply; however, it remains unclear which measures, or combinations of measures, are effective (Dastouri et al., 2012; Wheatley, 2016). There are few studies available, and differences between countries, prisons and prison management may render it more difficult to define what is the most appropriate approach to take. It is accepted, however, that a strategy is more likely to succeed if it comprises a combination of demand reduction, treatment, enforcement and security measures (Tompkins, 2016).

Supply reduction interventions

Supply reduction strategies in prison are implemented differently across countries: they can be implemented at institutional level (i.e. prison level) or coordinated at national level. The government body responsible for implementing strategies is generally the national ministry

responsible for running the prison services, but the national body responsible for drug-related interventions may also play a role.

The most common enforcement and security measures directly addressing drug supply in prison consist of operational procedures to detect drugs and related paraphernalia, including body searches and searches of cells, furniture, personal belongings and common spaces, such as yards and workshops. Searches and screening are often extended to all those entering prison, including staff, visitors and service providers. Trained dogs are often used to conduct searches. Also used in some prisons is the so-called 'electronic nose'. It is a portable electronic instrument, based on commercially available metal oxide gas sensors, that can be used to detect various types of drugs (Haddi et al., 2011). Detection instruments based on infrared or Raman spectroscopy may also be used. Other technologies used in search and monitoring include CCTV (closed-circuit television) and X-ray machines (Wheatley, 2016). However, their effectiveness needs to be assessed further.

Interventions aimed at deterring and detecting drug supply in prison can be complemented with interventions seeking to disrupt the supply and distribution of drugs in prison. Enforcement and security measures used to detect illegal communications about drug trafficking may include monitoring and controlling the communications of people in prison, including random monitoring of post and phone conversations and the use of PIN (personal identification number) technology allowing only approved numbers to be dialled by people in prison (Wheatley, 2016). The last two may be of limited use if there is a high level of mobile phone contraband (or may even encourage it).

Other interventions involve circulating information (posters, leaflets, and so on) on the implications of drug supply, which may vary from criminal charges to loss of benefits, such as banning or limiting visits (Wheatley, 2016). There is, however, limited evidence on the effectiveness of sanctions in reducing drug supply in prison (Trestman and Wall, 2018).

One strategy to reduce drug supply in prison focuses on addressing drug demand. Drug treatment, for example, can work to reduce the pressure on, and desire of, individuals to seek out drugs (see Chapters 4 and 5). People who use drugs in prison often report that, if appropriate treatment were available in prison, they would be likely to seek it, listing as their motivation not having to face the challenges and risks of maintaining a supply of illicit drugs in prison (e.g. detection, debt, bullying and violence). However, many prison systems have limited treatment opportunities, which may in turn result in drug-seeking behaviour.

Drug testing programmes in prison are often implemented with the dual purpose of addressing drug supply and supporting drug treatment in prison; these will be discussed in some detail later in this chapter.

Challenges to supply reduction in prison

There are many challenges to supply reduction in prison. Prisons are closed environments but ones with a considerable number of people, services and goods coming through the gates every day. Addressing drug supply in prison demands some understanding not only of the main routes and systems of supply and distribution in a particular prison but also of the possible implications of disrupting them.

Supply reduction and security measures may have unintended consequences. Disturbing one supply route may set off the flow of traffic to others. Security measures may result in increased pressure on people entering prison, including intimidation and robbing of those believed to have imported drugs into prison. They may also lead some people in prison to switch to drugs that are less likely to be detected, such as heroin, or to more harmful patterns of use, such as injection, with the consequent associated risks (Gore and Bird, 1996; EMCDDA, 2012; Ralphs et al., 2017). One of the main reasons reported for the increased use of synthetic cannabinoids in prison was their initial undetectability in routine urine testing (User Voice, 2016). Policy initiatives resulting in tightened security do not always lead to a more stable environment. There is a risk that they may disrupt the current state of affairs and could potentially result in increased tension between people in prison and staff (Penfold et al., 2005).

There are issues of resources and capacity, with many prisons across Europe experiencing overcrowding, understaffing (or staff with limited training) and restricted budgets, all of which limit their scope for action. New technologies, for instance, are effective in tracing small amounts of many substances, or concealed items, but they are costly and staff may need specific training to operate them (Dastouri et al., 2012). Photocopying people's post may seem simple enough but it can be a resource-intensive task, and it may infringe policies protecting personal privacy. Trained dogs are commonly used and are very efficient, but they can only work for a short time at each turn. Weaknesses in prison design may hinder efforts to reduce supply, but structural improvements can be costly and lengthy (Dastouri et al., 2012; Wheatley, 2016).

There are also tensions between the need to maintain safety and security in prison and the need to uphold other aims of incarceration such as preparation for re-entry to the community at the end of the sentence. For example, there is an inherent conflict between controlling external visits and the rehabilitative role of maintaining family relations (Keene, 1997; Trestman and Wall, 2018). These challenges point to the complexity of the issue in hand. They show how drug supply may be better understood not in isolation but in relation to drug demand and treatment, the overall aims of imprisonment, the specific circumstances of each facility and the legal framework of its jurisdiction.

Drug testing in prison

Drug testing programmes, mainly conducted through the analysis of collected urine, have been introduced in many European prisons as interventions to reduce both supply and demand since the 1990s. There is some evidence suggesting that mandatory drug testing may have a deterrent effect on drug use in some people in prison (Singleton et al., 2005). It is also believed that testing can support change or recovery as part of a treatment or therapeutic intervention and may reduce the levels of cannabis use (Dolan and Rodas, 2014). Drug testing may push some people to switch from using drugs that are detectable to using undetectable drugs, as in the case of the spread of new psychoactive substance use in prison, or it may have other unintended negative consequences, such as the increasing awareness of the availability and potential use of drugs (see Chapter 2).

Urinalysis offers a specific window for detecting substances, making test scheduling an important issue in many situations. When a drug is smoked or injected, absorption is almost instantaneous and excretion in urine begins almost immediately. Absorption is slower when a drug is administered orally and excretion may be delayed for several hours.

In general, cannabis is the most commonly detected drug because of its high prevalence of use in prisons but also the long period of detection after its use (up to several weeks), especially among more frequent users. The high levels of cannabis detection in prison may also be because it is the drug with the highest prevalence in the general population, and many people entering prison may have used shortly before they are tested on entry to prison. There may also be a bias related to the high rate of people re-entering on short sentences (Dolan and Rodas, 2014). Concerns have been raised that drug testing may lead people in prison to switch to more harmful substances and/or patterns of use that are more difficult to detect (Gore and Bird, 1996; EMCDDA, 2012; Ralphs et al., 2017).

Information from drug testing can provide useful epidemiological data and, when combined with other information sources, such as surveys of people in prison, may contribute to a comprehensive picture of the prevalence and patterns of drug use inside the prison. As a security measure, drug testing facilitates the detection of use and can work to deter use, yet, without specific follow-up such as treatment and counselling programmes, it can also increase tension inside prison and deflect attention from other important issues (MacDonald, 1997). Professional medical ethics and international recommendations advise against healthcare providers being involved in drug testing when it is conducted for security and control purposes (UN, 2016).

Table 7.1 provides an overview of the use of drug testing programmes in a number of European countries using data collected from the EMCDDA's legal correspondents in the EU Member States, Norway, Turkey and the United Kingdom and its Reitox network of national focal points in 2018.

In three countries (Greece, France and Cyprus), drug testing is not available in prison. In most countries where drug testing exists, it has the dual purpose of supporting treatment and prison security, but in eight countries it is focused exclusively on security issues and in four its sole aim is to support drug-related treatment.

Where drug testing is mandatory, the person tested is obliged to provide urine, breath, saliva, sweat, blood or hair samples, on request, unless there are medical or similar reasons for their not doing so. Mandatory drug testing programmes are expensive, and can result in days added to sentences, in prison systems that are already overstretched with large numbers of people in prison and limited budgets (Singleton et al., 2005).

In most countries, drug testing is administered by healthcare staff, but in some it is administered by prison staff or by both prison and healthcare staff, and several countries mentioned testing on entry and exit from prison, testing on suspicion of use, and random testing. This also depends on the main aim of the test: treatment or security.

The extent to which drug testing is used and the occasions and circumstances that trigger it also vary across jurisdictions, but data are generally scarce. For example, Finland reported 46 000 tests performed in 1 year (in a prison population of around 3 000), while in Luxembourg

TABLE 7.1

Drug testing in prisons in the EU Member States, Norway, Turkey and the United Kingdom (situation in 2019 or most recent information available)

Country	Aim	Context	Administration
Belgium	Treatment	Drug-free programme	No information
Bulgaria	Security	Suspicion of use (not applied extensively)	Healthcare staff
Czechia	Security and treatment	On entry, suspicion of use, random, drug-free zone, treatment (OST, mandatory treatment, voluntary treatment)	Healthcare staff
Denmark	Security and treatment	Suspicion of use, external visits, random control, drug-free zone, voluntary treatment	Prison staff
Germany	Security and treatment	The system is not nationwide. In some prisons it is conducted in cases of suspicion of new psychoactive substance use	Prison officers
Estonia	Treatment	Random testing	No information
Ireland	(Security and treatment)	Currently planning the introduction of drug testing in prisons, to be applied in the context of OST	No information
Spain	Security and treatment	As a control for the granting of permits — before, during or upon return — based on a prior commitment with the person in prison; preparation for release (up to 7 days for people with specific requirements) Linked to the therapeutic process in methadone treatment programmes; to adjust doses in OST or cessation programmes. In the case of positive controls, efforts are made to prevent relapse; expulsion from the programme is avoided	Healthcare staff
Croatia	Security and treatment	On entry, suspicion of use, transfer to another prison, if person is part of treatment programme, on return after each temporary stay outside the prison	Prison officers, healthcare staff
Italy	Security and treatment	On entry	Healthcare staff
Latvia	Security	Suspicion of use	Prison staff
Lithuania	Security	Suspicion of use	Prison officers
Luxembourg	Security	Suspicion of use (rarely applied)	Prison staff or healthcare staff
Hungary	Security and treatment	Mandatory monthly testing in drug-free wings, upon admission to drug-free wings, and in cases of suspected drug use. Not mandatory but can occur: when returning from outside prison	Healthcare staff
Malta	Security	Random testing	Healthcare staff
Netherlands	Security	Transfer to other institutions. Mandatory testing before going on leave	No information
Austria	Security and treatment	OST	Healthcare staff
Poland	Security	Suspicion of use	Prison officers
Portugal	Treatment	Random testing Testing required to access prison privileges On entry screening if suspicion of use	Healthcare staff
Romania	Security and treatment	For inclusion in a treatment programme and whenever necessary during the programme, on suspicion of use	Healthcare staff
Slovenia	Security and treatment	Random, if there is reasonable suspicion of being under the influence of drugs, OST/other treatment (Law on Execution of Criminal Sanctions)	Prison officers, healthcare staff
Slovakia	Security	On entry screening Random testing	Healthcare staff
Finland	Security	In 2016 there were 46 000 tests conducted; positive tests result in penalties	No information
Sweden	Security (treatment)	On request, to ensure no intoxication	Prison officers (or healthcare staff if blood involved)
Norway	Security and treatment	Suspicion of use	Healthcare staff for body cavity inspection, blood samples Prison officers for urine samples
United Kingdom	Security/treatment	Large random testing programme in England and Wales	Prison officers, healthcare staff

Drug testing in prisons is not available in Greece, France, Cyprus. Information on drug testing in prisons is not available for Turkey.

drug testing is triggered only by suspicion of use, and even then it is rarely applied.

Conclusions

Prisons present a unique set of circumstances and challenges for those involved in drug markets and those trying to prevent drug supply. Despite their illegality, drugs enter prison and are used by people who are in prison, as evidenced by data on drug seizures and the prevalence of use in prison. Those using or trading in drugs have established routes of supply and mechanisms of distribution in prison, which are adapted to their particular circumstances but flexible enough to be adjusted to make use of new technologies or to overcome new challenges, such as increasing security measures and attempts by prison authorities to deter drug use.

Prison authorities have introduced a wide variety of measures to deter, detect and disrupt the supply and distribution of drugs in prison. There is limited information, however, about the impact of these measures, each presenting its own set of advantages and disadvantages. The challenge facing those tackling drug supply in prison lies in reaching a balance between care and control and in understanding that measures introduced to control drug supply may have positive and negative consequences for other elements of prison life.

More studies are needed on the efficacy of different supply reduction interventions in prison, both individually and combined (Dastouri et al., 2012). Research on the roles and motivations of the various actors involved in drug supply in European prisons is also likely to contribute to better informed policies and practices seeking to deter engagement with the prison drug market. Finally, a better understanding of how drug supply and drug treatment and demand intersect in prison settings may go a long way towards a more sustainable and cost-effective deployment of drug-related interventions in prison.

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8

CHAPTER 8
Current insights and future challenges

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This EMCDDA Insights report has gathered together contributions from a variety of sources to provide a comprehensive overview of the current knowledge and the latest developments in the field of drug use and prison in Europe. The report has set out what is known about drug use and drug-related harms among people in prison and the responses available to address them. This concluding chapter brings together and discusses a number of important emerging issues in the context of future challenges in the field.

This chapter also draws on the insights and expert opinions conveyed at the technical meeting 'Prison and drugs in Europe: future challenges', hosted by the EMCDDA in Lisbon in January 2019. The meeting brought together experts from a variety of fields (including academia, public institutions, people with lived experience, prison security staff, health and drug services, and prison administration) to discuss the future challenges in the field and how these can be understood within a larger societal context. The meeting also focused on what policymakers, treatment providers, prison administrations and practitioners in health and social interventions may need to improve the conditions of people in prison who experience drug-related problems and the communities they will return to.

Prison populations and social vulnerability

Prison populations are diverse, complex, highly dynamic and characterised by an increased prevalence of multi-morbidity. Offending and drug use share a number of risk factors that, although not easily disentangled, reveal how drug use is often just one of many vulnerabilities of people in prison; this is particularly so in the case of women.

In recent years, attention has been devoted to how risk factors for drug use and imprisonment often relate to multiple and cumulative adverse childhood experiences that may have an intergenerational effect. These include experiences such as sexual abuse, violence, neglect and dysfunctional (and often drug-using) families. The development of interventions targeting this group must take into consideration the impact of such multiple adverse experiences on the behavioural and cognitive development of children (Fuentes, 2014; Jones et al., 2018).

Other groups of people in prison which may have particular health needs include foreign nationals, older people and LGBT (lesbian, gay, bisexual, transgender) people. Some of these groups (elderly, foreign nationals) are growing or have become more visible (LGBT) inside prison in recent years, yet little is known of their health and social care needs, which may be exacerbated when combined with drug-related problems.

In the future, there may be cumulative benefits from paying specific attention to targeted population groups when implementing drug-related interventions in prison. Women in prison, for example, report high levels of infectious disease and exposure to repeated trauma, particularly domestic violence and child abuse (Fuentes, 2014). Women who use drugs are particularly vulnerable, and their prison experiences, drug use and needs in terms of treatment need to be better understood.

Foreign nationals represent 11 % of the prison population in Europe (Aebi and Tiago, 2020) and, while there are no data specific to their healthcare needs (Tomita, 2019), several studies indicate that foreign nationals in prison face language and cultural barriers resulting in isolation and difficulties in expressing concerns about their health and accessing services, and that they may experience high levels of anxiety over their uncertain immigration status and family separation (Singh Bhui, 2007; Bosworth et al., 2016). Studies also suggest that this group is likely to suffer from untreated mental health problems and is particularly vulnerable to suicide and self-harm (Borrill and Taylor, 2009).

LGBT people face complex problems inside prison, and the experiences of transgender people in this setting have been shown to be difficult. There is no or little information

about drug use by this group and their prison experience or the indicated treatment options, but there is evidence of an elevated risk of substance use and substance use disorders and a high prevalence of HIV infection among LGBT people in the community (Glynn and van den Berg, 2017).

There are also specific concerns related to older people who use opioids in Europe, many of whom have had some experience of incarceration. Older people who use drugs are characterised by a history of poor health, long-term drug use, chronic tobacco and alcohol use, and age-related deterioration of the immune system, all contributing to increased susceptibility to chronic health problems such as cardiovascular and lung conditions. The cumulative effects of drug use and drug-related problems, including experience of non-fatal overdoses and infections, accelerate physical ageing among this group, which often has major implications for treatment and social support services (EMCDDA, 2010; Pirona et al., 2015).

While outside the scope of this report, young people in prison and juvenile prisons also represent a key population with particular needs. For this group, indicative prevention interventions have aimed to reduce drug problems and their negative consequences in individuals with behavioural or psychological problems, who are predicted to have a higher risk of substance use problems later in life (Carapinha et al., 2016; EMCDDA, 2019).

Addressing the needs of these groups in prison represents a challenge that the prison services in Europe will increasingly have to face in the coming years.

Prison and community

The need for a closer link between prison and the community has been repeatedly highlighted in national and international principles and recommendations guiding the provision and governance of health and social care in prison. The prison and the community are not discrete environments; they connect and intersect as people move between one and the other. This is particularly so in the case of people who use drugs. As the average duration of a prison sentence for this group is a few months, it is a dynamic population with regular contacts with the community, and this has implications for public health. Chapters 2 and 3 highlight how the prevalence of drug use and drug-related problems among people in prison is generally high. Providing continuity of care as people move between prison and the community is key to achieving sustainable and effective treatment outcomes.

Considering that people in prison come from and eventually return to the community, interventions in prison are likely to have a significant impact on public health. Interventions in prison may play a key role upon release in facilitating the continuity of treatment and in preventing drug-related deaths, and they may have a significant impact on morbidity, mortality, public health and recidivism. This not only benefits prisoners themselves but also delivers a community dividend (O'Moore, 2015). By addressing drug-related problems in prison settings, the health of people living in prison and in the community they return to can be improved, producing an overall societal benefit.

In addition, while prison conditions can negatively affect the already impaired health of people who use drugs, these are also settings that may facilitate the provision of health services. It is often in prison that people deemed hard to reach by health services in the community first come into contact with all-important prevention, treatment and harm reduction services to address their drug use and drug-related problems.

Closer coordination between health and social services outside and inside prison may require adjusting some professional practices, listening to the needs of people in prison, improving collaboration between professionals, reinforcing the diffusion of harm reduction measures in prison and supporting innovative programmes including alternatives to imprisonment. New technologies, such as e-health, can contribute to improving the linkage and continuity of care between services in and outside prison. Practical applications of e-health in the provision of drug treatment have been implemented in some Spanish prisons with encouraging results (EMCDDA, 2019; Morel-Darleux, 2019; Usieto, 2019).

People in prison retain their fundamental right to enjoy good health and are entitled to a standard of medical care that is at least the equivalent of that provided in the wider community. The smoking ban introduced in British prisons in 2015 sought to apply to prison the same preventive measures implemented in the community, and in doing so it addressed a significant health inequality among prison populations affected by a high prevalence of tobacco smoking and second-hand exposure. Assessments of the impact of the smoking ban in prison have, to date, shown no evidence of a negative impact on mental health or a decrease in safety or an escalation of violence (Maddalena, 2019). However, an ongoing study carried out by an English peer-to-peer organisation highlighted the need to address the difficulties experienced by a large proportion of people in prison with intensive and long-term tobacco smoking behaviours caused by stopping smoking

COVID-19 and drugs in prison: the impact of a 'double lockdown'

Prisons, as closed and tightly populated environments, often overcrowded, represent a challenge in controlling the spread of infectious diseases, including COVID-19. Furthermore, prison populations suffer from poor health compared with their peers in the community (Enggist et al., 2014). International organisations and NGOs were quick to publish guidance and recommendations for preventing the spread of COVID-19 in prison settings, and prevention and containment measures have been implemented in European countries since March 2020. In most prisons in Europe, external visits, services from external providers and group activities were interrupted; staff and, whenever possible, people in prison started to use personal protective equipment; and increased attention was given to hygiene, education and training on COVID-19 (EMCDDA, 2020). People with suspected COVID-19 were quarantined in designated spaces, and diagnosis, surveillance and treatment were implemented (WHO Europe, 2020). Furthermore, to reduce overcrowding, as an important risk factor for the spread of the disease, several European countries introduced regulations for the early release of some detainees, which resulted in a reduction of around 10 % in the prison populations in some European countries (Council of Europe, 2020; Europris, 2020).

Based on two EMCDDA studies conducted in May 2020 and in February 2021, those measures have had an important impact on drug issues in prison settings, including drug availability and drug use, drug-related harms and the provision of drug services (EMCDDA, 2020, 2021).

The interruption of external visiting appears to have disrupted one of the ways that drugs are smuggled into prison settings. Although this route is reported to have been partly replaced by an increase in the use of other methods, such as throwing drugs over the walls or using drones for drug trafficking, the overall drug availability in prisons is reported in many cases to have declined. According to experts, this has contributed to a more general reduction in the use of illicit drugs in prisons. Despite some fluctuations since March 2020, overall drug use appears to have remained at lower levels than in the pre-COVID-19 period.

The implementation of containment measures has also caused a disruption in the provision of drug services in prison, including services that involved people gathering in groups, such as psychosocial and peer-led interventions, and services provided by external suppliers.

In this context, efforts have been made to maintain the provision of services in a closed setting, which is subject to multiple limitations; innovations were introduced to address those obstacles, including increased use of telemedicine. Specific efforts were made to maintain the provision of OST in prison and the prevention and treatment of drug-related infectious diseases. Increases in mental health needs of people in prison, including those with drug problems were reported.

The emergence of COVID-19 has made the drug-related problem inside prison more visible and the need to address it more urgent (Montanari et al., forthcoming).

and the need to provide appropriate support for smoking cessation both inside prison and on release (User Voice, 2016).

As many people in prison come from vulnerable population groups, equivalence of care may not result in the same level of health as that enjoyed by the general population; therefore, additional interventions in prison may be needed to achieve equivalence of health outcomes. For the most part, however, people in prison are faced with a limited range of treatment options, and equivalence and continuity of care remain unachieved principles in the majority of countries in Europe.

Most interventions that have proved effective in the community have been implemented in prison but following some delay and with insufficient coverage (Chapter 4). OST in prison, for instance, while implemented in all reporting countries but one, remains available to only a small proportion of the people who need it. This is so despite its proven effectiveness in the treatment of opioid use and in reducing transmission of blood-borne viruses, as well its protective effect on drug-related deaths post release. Testing and treatment of infectious diseases among people in prison has an important impact on public health (Meroueh, 2019; Stöver et al., 2019b). Although testing and treatment of HIV, HCV and HBV are available in many

prisons across Europe, little is known about the levels of coverage and the numbers of people needing treatment. Needle and syringe programmes to prevent transmission of blood-borne viruses, which are widely implemented in the community across Europe, are available in prison in only three EU Member States. Considering that prisons are high-risk environments for the transmission of blood-borne infections, a comprehensive approach to harm reduction in prison is expected to play a significant role in the health of people in prison and in the community (UNODC et al., 2013; Michel et al., 2015; Stöver and Hariga, 2016; Stöver et al., 2019a).

Compared with the early 2000s, the availability and levels of provision of health and social care services targeting the needs of people in prison who use drugs have improved in several European countries, yet much remains to be done to enable prison health services in Europe to provide treatment and care in conditions comparable to those enjoyed by people in the community.

Obstacles to implementing drug-related interventions in prison include prison overcrowding, staff shortages and lack of resources. In addition, prisons are places of punishment. On the one hand, responding to needs arising from illicit behaviours is challenging in the community but all the more so in prison settings, where people may feel that disclosing their illicit activities carries a bigger risk of incurring additional penalties; establishing trust between people in prison and healthcare staff is of core importance in these settings. On the other hand, public sentiment and political will, informed by perceptions on the deservedness of people in prison, may negatively affect the implementation in prison of interventions widely available outside (Stöver et al., 2019a).

Developing a strong evidence base for drug-related interventions in prison, through sound operational research and programme evaluations that assess the impact on people in prison and on the wider community, may work to support arguments for allocating resources in this field.

Care and control

Prison authorities are responsible for the care of the people in their custody. They are also responsible for maintaining good order and security in prison, including tackling the drug supply and violence. Violence in prison is often linked to drug use and drug supply, and it is at least in part a reflection of both the individuals involved and the prison environment. As detailed in Chapter 7, a particular challenge when tackling drug supply in prison lies in reaching a balance between care and control, and understanding that measures introduced to control drug supply may have positive and negative impacts on other elements of prison life. People in prison can swiftly adopt new drug-using practices (EMCDDA, 2018).

The rapid expansion in the use of new psychoactive substances has had implications for how prison services operate. These substances are easier to conceal than other drugs and more difficult to detect through existing security systems, and their use in prison has been associated with increased paranoia, aggressive behaviour and drug-related deaths (EMCDDA, 2018). Since 2014, there have been increasing reports of people in prison using synthetic cannabinoids as a result of the peculiarity of the prison drug market.

Open discussions about new psychoactive substances with people in prison are jeopardised by fears of disclosing illicit behaviour. A survey conducted in English prisons found that over 50 % of people in prison would not seek support for fear of potentially incurring penalties and felt that prison officers were more concerned with punishment than support (User Voice, 2016; Johnson, 2019). In this context it is possible that interventions led by peers would help to overcome barriers to trust and offer positive role models for people in prison. Peer-to-peer interventions can also have a broader social impact by building social capital and resilience within deprived communities (Fletcher, 2012; Johnson, 2019). In addition, these interventions may facilitate earlier access to information on new drugs or drug-using behaviours, which in turn can assist prison and healthcare staff in responding in a timely and appropriate manner, developing targeted interventions and providing relevant information to people in prison. Early identification of new patterns of drug use through general screening could also facilitate early responses.

Prison authorities have introduced a wide variety of measures to detect, deter and disrupt the supply and distribution of drugs in prison. New techniques, such as drones, new drug testing machines and 'electronic nose'-type devices, among others, have been introduced in some prisons to support the traditional operational searches of people, personal belongings, cells and other spaces, and the monitoring and control of people in prison's communications (Chapter 7). There is limited information, however, about the impact of these measures, and more research is needed to inform policies and practices seeking to deter engagement with the prison drug market. Drug treatment can work to reduce the pressure on, and desire of, individuals to seek out new drugs. A better understanding of how drug supply and drug treatment and

demand intersect in prison settings may go a long way towards a more sustainable and cost-effective deployment of drug-related interventions in prison.

The role of prison officers in the delivery of drug treatment and harm reduction interventions differs across European prisons and has been the subject of some discussion (Kolind, 2015). Because prison officers work in close proximity with people in prison, they are well placed to understand the everyday challenges of life in prison and to provide support when needed. Conflicts of duty are likely to arise, as prison officers' responsibility for maintaining good order and security may be at odds with their efforts to develop trusting and supportive therapeutic relationships. In addition, people in prison may hesitate to disclose their illicit behaviour to prison officers (Kolind, 2019; Torsten, 2019).

An increasing number of countries are seeking a clear demarcation between the delivery of health services and the everyday running of prison life, in order to limit potential conflicts of duty between providing care and maintaining control. The clinical independence of healthcare staff is considered important to the provision of good healthcare in correctional settings, where the relationship between patients and caregivers is not based on free choice and where the punitive setting can present challenges for providing optimal medical care (Pont et al., 2018). Clinical independence also allows healthcare staff to refuse to be involved in implementing punitive measures.

Such concerns are one of the factors that have led a number of European countries to move the responsibility for healthcare in prison from the justice or interior ministries to the health ministry. However, while the early results from such transfers of the responsibility for healthcare are promising, it remains to be further assessed and confirmed whether these measures can contribute and have contributed to improving the health of people in prison and how structural changes can be improved.

Drugs and prison: alternative approaches

For a person with experience of illicit drug use in the community, a period of imprisonment may be associated with a number of negative consequences, including encouraging new patterns of drug use, exposure to infectious diseases, disruption of drug treatment and isolation from support networks. In addition, after release, the stigma of a criminal conviction may limit job opportunities and reduce the likelihood of social rehabilitation.

Several measures have been discussed and implemented in European countries that could potentially affect imprisonment rates, reducing the number of people serving prison sentences or other forms of punishment for drug use and other drug-related offences. These include decriminalising drug use, abolishing short-term sentences of less than 12 months (Gjersing, 2019) and providing alternatives to coercive sanctions.

A recent study modelled the effects of possible drug policy scenarios in Norway. It found that abolishing incarceration for use and possession of illicit drugs would result in an 18 % reduction in incarceration episodes, but that abolishing incarceration for all drug-related crimes (those committed to support drug use, offences for drug use regardless of quantity, production and drug trafficking) would result in a reduction of almost 60 % of incarceration episodes (Gjersing, 2019). Other studies have argued that diverting offenders with problematic drug use patterns towards rehabilitative measures and away from incarceration may have a number of positive effects, such as avoiding the damaging effects of detention and contributing to reducing the costs of the prison system (White, 2017).

Alternatives to prison are a specific type of alternative to coercive sanctions, meant as a measure with a retributive aim, taking place outside prison. While 'alternatives to conviction or coercive sanctions' emphasises the aim of the policy response, 'alternatives to prison' emphasises the setting. Alternatives to prison include receiving a suspended sentence conditional on attending drug treatment or agreeing to undergo treatment in prison that shortens the incarceration period (Kruithof et al., 2016).

Alternatives to coercive sanctions have been implemented in many countries in Europe, with a particular focus on high-risk drug users. The policy arguments for implementing these measures run along two lines: reducing harm to the individual and society caused by high-risk drug use; and addressing the structural burdens on the justice system arising from low-risk drug users, that is, to reduce the burden on the criminal justice system by avoiding prosecuting some drug offences, such as possession. The lack of clarity in choosing one of the two objectives often creates ambiguity and may lead to a loss of political support for rehabilitative measures. While it is widely agreed that the general deterrent of punishment has little effect on consumption levels of illicit drugs, drug use and its associated problems continue to be considered primarily a criminal justice matter by many, and measures

moving away from punitive sentencing continue to meet with some resistance.

Few countries in Europe have chosen to adopt widespread rehabilitative approaches. Where such policies are adopted, they are often implemented without robust monitoring or evaluation, despite the fact that investment in these could show dividends in the long run by providing information that can be used to improve the efficiency and effectiveness of the programmes. But, even if the resulting evidence is not strong, the key to success seems to be having a range of interventions available that can be matched appropriately to the needs of individuals with different types and levels of drug problems (EMCDDA, 2015). Studies are needed to improve the evidence base around alternatives to coercive sanctions, with particular attention being paid to the groups that can benefit most from them and to the stages of the criminal justice process at which they are best applied.

Implications for policy and practice

European countries have a unique opportunity to understand and tackle the impact of the intersection between drugs and prison by adopting a pragmatic and evidence-based approach to the health and social care needs of people in prison with drug-related problems. A number of key issues with implications for policy and practice are highlighted below.

- The principles of **equivalence of care** and **continuity of care** require the provision of the same range of evidence-based interventions for people with drug problems who are in prison as in the community, provided by staff properly qualified for treating addiction (whether prison staff or outside professionals), and mechanisms to ensure continuity of treatment; this is especially important for those incarcerated for short periods.

- International institutions provide recommendations for a **whole-of-government responsibility** in the management of health care in prison (WHO guidance) and provision of harm reduction measures in prison (UN/WHO guidance).

- **Health and social care responses** in prison may have a significant impact on the morbidity and mortality of the prison population, and on the community outside prison, with a significant overall public health benefit. First, by engaging people with drug-related problems in treatment, their drug use and risk behaviours in prison and overdose risks on release may be reduced; and second, by offering testing for infectious diseases to everybody on entry to prison and following up with treatment as needed, the prevalence of infectious disease in prison population, including among those with drug problems can be reduced.

  Key interventions addressing drug-related problems in prisons include:

  - health assessments on entry to prison, including an assessment of drug use and related problems;
  - targeted prevention of the risk factors common to both drug use and imprisonment, including interventions that address multiple adverse childhood experiences;
  - a full range of drug treatment interventions, including OST for those with opioid use problems;
  - interventions targeting risk behaviours and infectious diseases, including harm reduction measures and the prevention and treatment of infectious diseases — offering infectious disease testing to every person on entry to prison would be an important starting point;
  - tackling the risk of overdose associated with release from prison through a range of interventions in preparation for release, including continuity of treatment and referral to outside services, and overdose prevention activities with consideration given to the provision of take-home naloxone;
  - preparation for release that includes activities to support the social reintegration of people with drug problems.

- **Alternatives to coercive sanctions** are implemented in several countries for people with high-risk patterns of drug use who commit criminal offences. It is widely recognised that punishment is not a deterrent to drug use and some studies have shown a potential effect of such alternative measures on reducing offending and drug use (Kruithof et al., 2016). More studies are needed to improve the evidence base on the effectiveness of these measures.

- It is important to increase the **transfer of best practices** by collecting and disseminating best practice interventions and existing guidance on effective drug-related interventions in prison.

- It is necessary to **scale up effective interventions** and aim for the full implementation of drug-related interventions in prison for which the evidence for effectiveness is strong.

- **Improving the evidence** on health and social care interventions in prison, and on the needs of people in prison with drug-related problems, including minority groups such as women, LGBT people and foreign nationals, is important. Data on the various issues surrounding drugs and prison in Europe can inform needs assessment, service planning and treatment organisation and offer a window to the profile and needs of people with drug-related problems in the community.

- Enhancing **monitoring and research in prisons** is an essential requirement to generate the evidence needed for the provision of appropriate interventions on prison and drugs. Harmonisation of data collection across European countries, especially regarding data comparability, is important if the value of the information collected is to be realised. This is true for comparing experiences, issues and solutions between countries, and for facilitating the exchange and promotion of best practice in drug-related interventions in Europe. Increasing the synergies between international organisations will help to avoid duplication and ensure the validity of data.

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Abbreviations

ADHD	attention deficit-hyperactivity disorder
BBV	Blood-borne virus
CPT	European Committee for the Prevention of Torture
ECDC	European Centre for Disease Prevention and Control
ECHR	European Convention of Human Rights
ECtHR	European Court of Human Rights
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EQDP	European questionnaire on drug use among people living in prison
HA-REACT	Joint Action on HIV and Co-infection Prevention and Harm Reduction
HBV	hepatitis B virus
HCV	hepatitis C virus
HIPED	Health in Prisons European Database
HIPP	health in prison programme (WHO)
HIV	human immunodeficiency virus
LGBT	lesbian, gay, bisexual and transgender
NGO	non-governmental organisation
NICE	National Institute for Health and Care Excellence (UK)
OST	opioid substitution treatment
SDG	(UN) Sustainable Development Goal
SMR	Standard Minimum Rules for the Treatment of Prisoners
TB	tuberculosis
UNODC	United Nations Office on Drugs and Crime
Wephren	Worldwide Prison Health Research and Engagement Network
WHO	World Health Organization

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