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Health and social responses to drug problems in prisons

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Health and social responses to drug problems: a European guide

Author
C. Guiney

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Dr Ciara Guiney BSc PhD MSc Cpsychol
Research Academic Psychologist
Yin-Yang Well-being

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Introduction

This paper contributes to a larger report on health and social responses to drug problems in Europe. The central aim of the paper is to provide an overview for policymakers, health and prison service commissioners, and providers and service users of how prisons may provide a setting for responding to problems associated with drug dependence. The paper first examines the prison context and outlines why it is an important setting for the treatment of drug problems, and describes particular issues associated with this setting. It then examines the health consequences of problematic drug use in the prison context, notably infectious diseases, psychiatric comorbidity and mortality. Interventions for drug users in prisons are then delineated, drawing on the literature on policy, drug treatment, harm reduction and preparation for release. Subsequently, challenges to providing interventions in this setting are unpicked and a case study of the ways in which Ireland has sought to overcome these challenges is provided. Finally, future developments and opportunities in this area and the implications for drug policy and practice are considered.

Prison context

Illicit drugs have been identified as an area of concern that affects health and security in Europe while also influencing living conditions worldwide (Council of the European Union, 2008). The term 'illicit drug use' captures a diverse range of behaviour, from tobacco use in prison settings where it is banned to the illicit use of prescription drugs and substances more traditionally thought of as drugs, such as heroin, cocaine, cannabis and new psychoactive substances.

One setting that has been increasingly recognised as important for drug-related responses is prisons (Fletcher et al., 2009). According to the Council of Europe's SPACE I (Statistiques Pénales Annuelles du Conseil de l'Europe) data, on 1 September 2015, approximately 695 000 ⁽¹⁾ prison inmates, including pre-trial detainees, were incarcerated across the 28 European Union (EU) Member States and Norway and Turkey (Aebi et al., 2017). Many studies have reported that the majority of prison inmates have used drugs at some stage during their lifetime (Fazel et al., 2006; EMCDDA, 2012, 2014), and in many cases the drug use behaviour

⁽¹⁾ Figures for Malta and Poland were not available.

patterns displayed are ongoing and challenging (EMCDDA, 2012). Sometimes the main source of funding for drug use is criminal activity. Where drug use is more problematic, the likelihood of imprisonment is higher (EMCDDA, 2012, 2014). Incarceration leads some drug users to reduce or stop drug use, but other prisoners continue to use drugs or are initiated into drug use (Lukasiewicz et al., 2007).

The prevailing characteristics of drug users in prison are diverse; in the main, they come from communities and social groups that are considered vulnerable, such as those with poor socioeconomic backgrounds or limited academic attainment, those with no fixed abode, the unemployed and some migrant or ethnic minority groups (WHO, 2007, 2014; EMCDDA, 2014; Ugelvik, 2014). The needs of prison inmates with regards to drug use, mental health, attitudes towards breaking the law and reasons for treatment are varied (McKeganey et al., 2016, cited in Kolind and Duke, 2016). In addition, the stress and social, mental and physical health issues suffered by prison inmates (EMCDDA, 2012; Fazel and Seewald, 2012) can be exacerbated by factors such as prison overcrowding, which is an issue in approximately 33 % of prisons (Aebi et al., 2017). Moreover, prison populations are transient, with the majority of prisoners, particularly those with drug problems, receiving short sentences. This poses challenges for continuity of care within the prison environment and following release from prison (EMCDDA, 2012) for people receiving drug treatment, as well as the public health issues around the spread of infections associated with the frequent movement of people between the prison population and the wider community.

Drug use and related problems among prisoners

Extent and nature of drug use

Prison inmates are not always comfortable disclosing information about drug misuse, for one reason or another; hence, it is not possible to obtain accurate prevalence data, and any information gleaned provides, at best, only an estimate of what is happening. Nonetheless, the connection between drug use and crime is well known (Bean, 2014). Although causality has not been shown, a number of studies have reported that drug use influences a range of criminal behaviour (Allen, 2005; Mills, et al., 2013). A recent report by the UK Home Office estimated that 45 % of acquisitive offences were committed by regular heroin/crack cocaine users (Mills et al., 2013). In

another study, of new prison inmates, 55 % stated that they carried out their offences to fund drug consumption (Borill et al., 2003). In addition, rates of drug misuse among inmates in the 12 months prior to incarceration of the order of 50-70 % have been reported in studies of a variety of groups of prisoners (Burrows et al., 2001; Ramsey, 2003; Light et al., 2013). The prevalence of substance abuse and dependence in the 12 months before entering prison has been found to be higher among female prisoners (range 30-60 %) than among male prisoners (range 10-48 %) (Fazel et al., 2006). A further analysis of these findings compared with prevalence rates among the general population reported by Kessler et al. (1994) suggested that drug use in prison inmates, particularly female prisoners, is higher than in the general population (Fazel et al., 2006).

Scant attention has been given to examining drug use in prison at a global level. However, a recent review (n = 59) carried out by Carpentier et al. (2017) found that the prevalence of reporting having ever used any drug while in prison ranged from 2 % (Romania) to 70 % (Chile). For some drug users, going to prison results in the cessation of drug use; others continue to use drugs during imprisonment (Lukasiewicz et al., 2007) or initiate drug use to self-medicate, to pass time, to build social networks or to acquire and enhance status (Wheatley, 2007). Furthermore, some existing users will consume a new substance instead of, or as well as, their usual substance, sometimes leading to the use of a more dangerous drug (Montanari, et al., 2016). Alternatively, the mode of drug use can be altered, perhaps because of the form or limited availability of the drug, for example from sniffing to injecting. Moreover, in a report by HM Inspectorate of Prisons, there was evidence to suggest that patterns of substance use in UK prisons are constantly evolving. In the period covered by the report (2014 to 2015) the misuse of opiates appeared to be declining, but an increase in the misuse of medication was identified (HMIP, 2015). The report also highlighted the emergence of new psychoactive substances, more specifically synthetic cannabinoids, within the prison setting (HMIP, 2015; PHE, 2015). These changing patterns of use are influenced by a range of factors, including product purity and cost, desired or adverse effects and alterations to legal status (PHE, 2015).

Research on drug use patterns in prisons has often focused on drug injecting (EMCDDA, 2012), largely because of the identified link between injecting drug use and adverse health risks, for example blood-borne infections such as human immunodeficiency virus (HIV) and hepatitis C virus (HCV) (EMCDDA, 2012). Another important health risk that is prominent is overdose, which is not only linked to injecting drugs but may also be exacerbated by polypharmacy (i.e. use of a range of different drugs at the same time) and potentially leaves the user at elevated risk of adverse side effects caused by interactions between substances or additive effects. These risks are important in the prison setting as recent studies have shown that between 6 % and 48 % of prisoners have injected drugs at some time in their lives (EMCDDA, 2016a).

Health consequences

The health consequences of drug use are varied and include infectious diseases, psychiatric comorbidity and mortality in prison and on release. Each will be discussed separately.

Infectious diseases. Prison inmates who inject drugs are at high risk of infectious diseases such as HIV, HCV, hepatitis B virus (HBV), tetanus and botulism (EMCDDA, 2016b), which can be spread by shared drug use materials and unprotected sex (EMCDDA, 2016a). Moreover, tuberculosis (TB) in prisons is a major problem, and injecting drug users are at high risk of TB infection or disease (Dara et al., 2014). Dara et al. (2014) argue that prison settings may facilitate transmission, so screening is vital and, regardless of when (e.g. on arrival in prison) or how (e.g. mass, passive or contact screening) it is carried out, should utilise a range of methods (e.g. clinical questionnaires, chest radiographs, smear microscopy and self-referrals).

Individuals in prison have 'multiple and complex health and social care needs' (Anders et al., 2017). For example, from a health perspective, both mental illness and drug use are viewed as a significant problem within the prison setting (Todts, 2014) and frequently co-occur and interact. In the European Union, the level of risk and prevalence of such health problems among prison inmates varies between Member States but, nonetheless, are higher than in community settings (WHO,

2005). Health complexities are further intensified by factors that may be associated with the prison context; for example, overcrowding and delays in treatment and diagnosis can increase the risk of the spread of infections among prison inmates (Todts, 2014). At the same time, issues associated with social disadvantage, such as unemployment, lack of housing, inadequate services, predisposition towards a criminal career, lack of education, lower levels of functionality and life skills, and stigma, may contribute to the final outcome (Anders et al., 2017).

Psychiatric comorbidity. The prevalence of substance use co-occurring with psychiatric disorders has emerged as an area of major concern (EMCDDA, 2015a). In a review of 10 studies carried out by the EMCDDA, psychiatric comorbidity among various subgroups of prisoners ranged from 20 % to approximately 85 % (EMCDDA, 2015a). Studies have confirmed a high level of psychiatric comorbidity in association with substance use disorder in forensic settings, which can be further categorised by type of disorder: personality disorders (50-90 %), mood disorders (20-60 %) and psychotic disorders (15-20 %) (Pallijan et al., 2009). Similar outcomes have been found in other countries; for example, in the United States, Lynch et al. (2014) found that 38 % (n = 197) of female prison inmates met criteria for mental illness and co-occurring substance use disorder during their lifetime and 20 % (n = 98) met criteria for comorbidity in the previous 12 months. Similarly, Hiller et al. (2005) found that 39 % of prison inmates were diagnosed with substance use disorder and mental illness. These authors also found that inmates reported significantly more physical health issues— for example, respiratory, liver, heart and stomach problems and traumatic injury — even when age was controlled for (Hiller et al., 2005). Despite the fact that considerable research evidence endorses the link between psychiatric disorders and substance use, the relationship is complex; how it presents in prisoners varies, as it is influenced by the type of mental disorder and also the type of substance used (EMCDDA, 2015a).

Mortality in prison and on release

Mortality rates among prison inmates are high (EMCDDA, 2015b). According to data available from the Council of Europe's SPACE I project, the median mortality rate in 2014 was 27 deaths per 10 000 inmates, which was slightly lower than in 2013 and 2012 (28 deaths per 10 000 inmates). Drug and alcohol intoxications accounted for

2 % of deaths on average in 2014, and suicides made up 25 % on average (Aebi et al., 2017). A 20-year study examining natural deaths in male prisoners in England and Wales found that standardised mortality rates among prisoners were lower than in the general population for natural deaths overall (0.70), but higher for respiratory pneumonia (2.35) and other infectious causes (1.52) (Fazel and Benning, 2006). Other important causes of death in prison populations include overdose, suicide, disease caused by HCV infection, alcohol abuse and violent behaviour (EMCDDA, 2015b).

Suicide is a major cause of death in prisons (Fazel et al., 2005; Baillargeon et al., 2009). Inmates serving short (< 1 year) or long sentences have been shown to be particularly vulnerable to suicide (Rabe, 2012). One study of suicide among English and Welsh prisoners between 1999 and 2000 found that 32 % of completed suicides occurred during the first week of imprisonment, with 11 % occurring within 24 hours (Shaw et al., 2004). Furthermore, those in the sample with drug dependence were more likely to die by early suicide, in this group 59 % of the suicides occurred within 7 days of reception (Shaw et al., 2004).

Newly released prisoners are also at increased risk of death, particularly in the period immediately post release, and drug-related causes play a prominent role in this increased mortality. One systematic review of deaths post release in seven different countries — United States (5), UK (England and Wales (3), Scotland (2)), Australia (4), Finland (1), France (1), Netherlands (1), Switzerland (1) — found that drug-related standardised mortality rates in males alone or in males and females combined ranged from 4.1 to 26.0, with rates for females alone being even higher (8.7-115.9) (Zlodre and Fazel, 2012). Another meta-analysis of six studies of mortality on prison release, by Merrall et al. (2010), compared the risk of death in the first 2 weeks post release with the period 3-12 weeks after release. Of the 1 033 deaths recorded in the six studies as occurring in the 12-week period post release, over half (612) were drug-related and there was a three- to eight-fold increase in the risk of death in the first 2 weeks post release compared with the remainder of the 12-week period. However, there were considerable disparities between studies (Merrall et al., 2010).

More recently, a study of deaths following release from prison in Norway found that 85 % (n = 123) of deaths reported in the first week post release were the result of overdose. In week 2, risk of overdose was halved, and in weeks 3 and 4 overdose was reduced to one fifth of the level seen in week 1. What is more, in this study, the length of time prisoners were detained was found to be associated with the risk of death from overdose: prisoners who were detained for 3-12 months were at higher risk of overdose death than prisoners who were detained for shorter or longer periods (Bukten et al., 2017).

Other causes of deaths may also be important; for example, data for the financial year 2015/16 from the UK (England and Wales) show that accidental death (which includes drug- and overdose-related deaths) accounted for 9 % (n = 68) and self-inflicted deaths for 36 % (n = 264) of all deaths of offenders under probation supervision in the community (n = 725) (Ministry of Justice, 2016). People under probation supervision can be either serving court-ordered sentences in the community (including community orders and suspended sentence orders) or on post-release supervision after completion of a custodial sentence (the latter group making up about one third of the caseload).

Interventions for drug users in prison

Policy context

The drug-related healthcare needs of prison inmates are considered a public health priority in Europe (EMCDDA, 2012). With the aim of addressing this problem, numerous policies and plans have been adopted and put into place. At European level, the European Council in 2003 adopted a resolution regarding the treatment of prison inmates who use drugs ⁽²⁾. A year later, the European Parliament adopted recommendations to protect the rights of prison inmates in the European Union ⁽³⁾.

Prison settings have been prioritised in the EU Drug Strategy (2013-2020) ⁽⁴⁾ and its associated action plan (2013-2016) ⁽⁵⁾. Prisons are addressed in Section 1 (drug demand reduction):

- Objective 2 (drug treatment and rehabilitation), Action 8, aims to scale up development and availability of healthcare for drug users in prison or post prison (continuity of care).
- Objective 5 (enhancement of judicial cooperation and legislation with European Union), Action 21, allows for Member States to provide alternatives to punishment, for example education, treatment, rehabilitation and aftercare.

Finally, in Section 3 (coordination), Objective 14 refers to the maintenance of networks within and across Europe to share information, research and monitor and evaluate illicit drugs. Action 50 of this objective targets illicit drug use among prisoners. A tool that has been developed by the EMCDDA for this purpose is the European Questionnaire on Drug Use Among Prisoners (EQDP) ⁽⁶⁾, which is based on core questions already being utilised in prison settings in many EU countries.

Other recommendations adopted by the Council of Europe, through the Council for Penological Cooperation under the Committee of Ministers, include the European Prison Rules ⁽⁷⁾. Moreover, guidance on prison health standards and governance

⁽²⁾ Available at http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/iha/74719.pdf

⁽³⁾ Available at <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P5-TA-2004-0142+0+DOC+XML+V0//EN>

⁽⁴⁾ Available at [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012XG1229\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012XG1229(01)&from=EN)

⁽⁵⁾ Available at [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XG1130\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XG1130(01)&from=EN)

⁽⁶⁾ Available at http://www.emcdda.europa.eu/publications/technical-reports/european-questionnaire-drug-use-among-prisoners-eqdp_en

⁽⁷⁾ Available at http://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805d8d25

has been issued by the World Health Organization (WHO, 2007) and the United Nations Office on Drugs and Crimes (UNODC, 2013). Two other organisations that have contributed to the welfare of prison inmates on drug treatment are WHO and the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) ⁽⁸⁾. The main role of the CPT is to visit prisons throughout Council of Europe Member States to determine how prison inmates are being treated, following which the CPT sends a report outlining its findings and recommendations to the government of the state in question. WHO, through its Health in Prisons Programme (HIPP), provides help and advice to Member States to help them target health and healthcare in prison. In addition, HIPP expedites links between prison health and public health systems at national and international levels (WHO, 2017).

At national level, in 2016, the national drug strategies of 12 EU Member States included objectives for prison health. Drugs are targeted in nine prison health strategies, with three countries having a strategy targeting prison drugs exclusively: Luxembourg, Portugal and Norway (Montanari et al., 2016).

Internationally, prison health is primarily guided by two basic principles: (1) the provision to prison inmates of care that is equivalent to that found in the community; and (2) continuity of care (whereby prisoners who commence treatment in prison are able to continue their treatment in the community). Interventions broadly fall into three categories: treatment, harm reduction and preparation for release.

Drug treatment

Traditionally, prison healthcare has been the remit of the ministry responsible for prison services (e.g. the justice or interior ministry) (EMCDDA, 2012). However, a number of countries have already or are in the process of transferring prison health to their ministry of health (e.g. France, Italy, Slovenia, the United Kingdom, Norway, Sweden and Spain) (EMCDDA, 2012). In Finland, prison health came under the remit of the Ministry of Social Affairs and Health through the National Institute of Health and Welfare (EMCDDA, 2017a).

⁽⁸⁾ More information available at <http://www.coe.int/en/web/cpt/faqs#what-is-the-cpt>

The organisation of health and social responses to drug-related problems varies among EU countries. For example, according to respondents in a study by Hamilton et al. (2015), Sweden takes a whole-country approach whereas, in Germany, programme delivery is the responsibility of individual regions. In contrast, centred on a national partnership agreement between the National Offender Management Service, National Health Service (NHS) England and Public Health England for the co-commissioning and delivery of healthcare services in UK prisons, NHS England is responsible for the commissioning and management of services related to all healthcare (NOMS, PHE and NHS England, 2015). Programmes are mainly delivered in one of two formats: nationwide, by means of accredited programmes, or locally by private and non-profit organisations (Hamilton et al., 2015). In addition, Hamilton et al. (2015) identified a systemic approach to treatment, with programmes embedded in wider community services such as social, medical, throughcare and/or employment assistance services. Regardless of how responses are delivered, systematic reviews and meta-analyses demonstrate positive outcomes for the provision of treatment to individuals who misuse drugs within the judicial system (Pearson and Lipton, 1999; Mitchell et al., 2007; Koehler et al., 2014).

Drug-related services available to prison inmates on entering prison, during their stay and after they are released are outlined in EMCDDA (2012). What follows is a brief synopsis of what occurs on entry to prison. At the outset, a medical examination, which is generally viewed as standard practice by EU countries, is carried out to determine whether or not the inmate has any pre-existing conditions (e.g. withdrawal symptoms) that may need medical attention or ongoing treatment (medication needs). The initial assessment is carried out by a prison doctor or nurse on entry or within 24 hours. In accordance with the European Prison Rules, a more in-depth medical examination, which includes an assessment for specialist care and testing for blood-borne viruses (BBVs) and sexually transmitted infections, is carried out 1-20 days after entry (EMCDDA, 2012). Tests for infectious diseases are optional. The health record created at entry is usually confidential and remains with the inmate for the duration of his/her stay in prison. Most EU countries carry out clinical assessments for drug use and associated drug-related problems and suicide risk although in some countries standardised tests, questionnaires or interviews are utilised; for example, in Sweden the Addiction Severity Index Interview can be used,

and in the UK assessment can be carried out by the CARATs (counselling, assessment, referral, advice and throughcare services) team. Multidisciplinary assessments (psychological, social and legal) are utilised in some countries (e.g. Spain, Italy and the Netherlands) and lead to the development of individual care plans (EMCDDA, 2012). During the initial consultation, inmates are advised about treatment and prevention, and are referred to specialists if further care is needed. Inmates are advised of risks that may arise in prison and they are given hygiene kits and condoms (EMCDDA, 2012).

Treatment approaches used in prisons in the European Union can be broadly classified into three groups (EMCDDA, 2012):

1. *Low-intensity drug treatment.* Short-term programmes that focus on reducing drug use, preventing relapse and harm reduction are carried out within the prison setting. Interventions may include counselling, psychoeducation delivered in group settings, crisis intervention, motivational programmes, cognitive behavioural therapy (CBT) or short-term treatment in outpatient settings. These services are generally delivered by the prison system.
2. *Medium- or high-intensity drug-free treatment.* Treatment is delivered in residential settings in inpatient wards, for example therapeutic communities or residential drug-free units in prison. Treatments may include CBT and 12-step programmes, in which prison inmates identify what their triggers for drug use are and when they are at high risk of use. Inmates learn coping skills, how to problem solve and how to disrupt negative thought patterns. Programmes are delivered in groups or individually.
3. *Medium- or long-term opioid substitution treatment.* People who are addicted to heroin or other opioids are prescribed medication to help stabilise dependence (EMCDDA, 2012). Opioid substitution treatment was recommended as the treatment of choice for opioid dependence by the Council of the European Union (2003) and WHO (2009) and is the primary method utilised in the treatment of opioid dependence in the majority of EU Member States (EMCDDA, 2012). Its use in prison settings has also been well supported in the literature (Stallwitz and Stöver, 2007; Hedrich et al., 2012; Larney et al., 2016). It was first introduced in prisons in the Netherlands in 1985 and by 2017 was reported to be available in

28 of the 30 countries monitored by the EMCDDA (EMCDDA, 2017b) ⁽⁹⁾. Despite these advances, opioid substitution treatment is not always provided or available to prisoners (Larney and Dolan, 2009), and in some instances requests for opioid substitution treatment can be refused. A case recently brought before the European Court of Human Rights — Wenner v. Germany — dealt with just this issue. Mr Wenner, a prisoner who had a lifelong addiction to heroin (40 years) was refused opioid substitution treatment on admission to prison. In the final judgment, delivered in September 2016, the Court upheld the prisoner’s complaint and agreed that the refusal of opioid substitution treatment in prison was inhumane and was in breach of Article 3 of the Convention for the Protection of Human Rights and Fundamental Freedoms ⁽¹⁰⁾.

A more recent problem that has emerged is in relation to new psychoactive substances. Increasingly, it has been found that new psychoactive substances, particularly synthetic cannabinoids, are being used by adult prison inmates. Studies in the UK suggest that the use of new psychoactive substances is widespread and is associated with increased debt, intimidation, violence, organised crime and medical emergencies (Centre for Social Justice, 2015; HMIP, 2015, 2016, 2017).

Because the content of new psychoactive substances is varied and changes rapidly, their use poses a particular challenge to healthcare and to prison employees as there is uncertainty in how best to respond (EMCDDA, 2016c). This is further exacerbated by the lack of data on the effectiveness of responses to new psychoactive substances use in prisons. There is a need to develop effective responses, starting with adaptations of existing evidence-based responses to other drugs (EMCDDA, 2016c). At the same time, attempts are being made to overcome deficits in knowledge and to generate advice by setting up working groups and training and awareness campaigns to educate and share information (Rehabilitation for Addicted Prisoners Trust, 2015). In an attempt to overcome these issues, Public Health England has developed a toolkit that brings information together to help local authorities, organisations and the NHS to respond to new psychoactive substances (PHE, 2015).

⁽⁹⁾ No data available in 2016 for Greece, Cyprus, Lithuania and Slovakia.

⁽¹⁰⁾ Available at <http://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680063765>

Harm reduction

Harm reduction/prevention strategies have been an essential component of European drug policy since the beginning of the 21st century (EMCDDA, 2010). In relation to prison settings, harm reduction is defined as the prevention or reduction of negative health outcomes that are caused by incarceration, for example drug overdose, mental health issues, suicide and self-harm (WHO, 2005). The central premise behind the concept is that individuals who misuse drugs are unable to refrain from using drugs in the short term and, therefore, it is beneficial to reduce the harm that is associated with drug use by helping them to reduce drug use or by minimising or eliminating the sharing of needles and other drug paraphernalia that can spread infectious diseases (WHO, UNOCD and UNAIDS, 2007). Harm reduction is mainly delivered as a 'combination intervention', which consists of a package of interventions that are tailored to suit an individual's needs and lived experience (EMCDDA, 2010).

A number of harm reduction programmes are recommended within EU prisons. For example, testing helps reduce the prevalence of infectious diseases among drug users by making them aware of their infection status, which in turn should encourage them to obtain treatment earlier if needed (EMCDDA, 2016a). Testing programmes can be either opt in (tests are offered and prisoners choose whether to have the test or not) or opt out (individuals receive the test unless they decline) (Rumble et al., 2015). In England, with the aim of increasing diagnosis of HCV, HBV and HIV infections among prisoners and subsequently providing treatment, an opt-out policy has been in place across all prisons since 2013 (PHE, 2014). An analysis of Prison Health Performance and Quality Indicators found that the rate of testing of new prison entrants for HCV in 2014 (approximately 10 %) was more than twice that in 2010 (approximately 4 %) (PHE and WHO, 2015). Moreover, the Health and Justice Indicators of Performance, which replaced the Prison Health Performance and Quality Indicators in April 2014, contain more specific indicators for monitoring HCV testing. Preliminary data from these Health and Justice Indicators of Performance for 2015/16 show that 11.5 % of new receptions to adult prisons in England were tested for HCV antibodies, and that 79.5 % of those with a positive result were tested for active disease by PCR (polymerase chain reaction) testing (PHE, 2017). It could be argued that introduction of the blood-borne virus opt-out testing, agreed in October

2013, has contributed to the increase in testing, which in the case of the UK has resulted in a positive outcome.

To reduce the risk of HIV and HCV transmission, it is recommended that prisoners be provided with clean drug injection equipment, along with free access to sterile needles and syringes, as well as advice about hygiene and caring for wounds (ECDC and EMCDDA, 2011). Individuals who are already infected with HIV or HCV should be given antiviral treatment. Individuals with active or latent tuberculosis (TB) should receive TB treatment and TB prophylactic therapy respectively. Treatment should also be provided if other infectious diseases are diagnosed (ECDC and EMCDDA, 2011).

Individuals who inject drugs are also at high risk of contracting hepatitis B, hepatitis A or the bacterial infection, tetanus, and, if they already have hepatitis C, other concomitant infections will lead to faster progression of hepatitis C and increased ill health (ECDC and EMCDDA, 2011). The most effective and cost-effective way of preventing the spread of these conditions is vaccination (ECDC and EMCDDA, 2011). There is currently a global shortage of hepatitis B vaccines (PHE, 2017). As a result, in the UK, health professionals who administer vaccinations have been issued with a classification for prioritisation along with guidance on how to prevent exposure (PHE, 2017). This shortage is likely to have an impact on prison programmes as prisoners are not classified at highest level of risk or urgency (level 3).

Other harm reduction programmes include distribution of condoms, counselling and information, health promotion and targeted delivery of services (ECDC and EMCDDA, 2011). Further information on prevention and harm reduction can be found on the EMCDDA best practice portal ⁽¹¹⁾.

One tool that has been shown to reduce injecting risk behaviour is needle and syringe programmes. It would seem likely that the introduction of needle and syringe programmes in prisons would reduce the transmission of HIV among prison inmates who inject drugs (EMCDDA, 2016a). However, despite the adoption of needle and syringe programmes by a large number of countries worldwide (n = 90), progress within prison settings has been slow (Cook et al., 2016). Moreover, needle and

⁽¹¹⁾ Available at <http://www.emcdda.europa.eu/best-practice/>

syringe programmes are not widely available in EU prisons. Only four countries report needle and syringe programmes in prison settings, with only three reporting actual syringe distribution: Germany, Luxembourg and Romania.

Tattooing in prison is not always prohibited, and it is widespread (WHO, 2007). More often than not, tattoos are applied using equipment that is non-sterile and shared (Treloar et al., 2015), which can act as an independent risk factor for infections such as HIV, HBV, HCV and tetanus (Hellard et al., 2007; WHO, 2007). In particular, studies have shown that among prison inmates having a tattoo applied in prison is independently associated with having an HCV infection (Long et al., 2001; Rotily et al., 2001; Babudieri et al., 2005). To reduce the risk of acquiring infectious diseases from tattooing, the Dublin Declaration on HIV/AIDS in Prisons in Europe and Central Asia, prepared by Lines et al. (2004), states that European countries have a responsibility to provide safer tattooing equipment so that prisoners can protect themselves from HIV. Moreover, WHO (2007) recommended that prisons should provide safe tattoo rooms that have facilities for sterilising tattooing equipment. In addition, tattooists should have good hygiene practices (hand washing and glove use), use clean, sterilised tattooing equipment and use sterile needles once only (WHO, 2007). It has been argued that safe tattooing programmes should be available in prisons (Bonnycastle, 2011). In Canada, a change of minister led to the discontinuation of safe tattooing programmes that had been implemented; however, in the short space of time that they were running they were shown to reduce harm and exposure to health risk while also increasing health and safety of staff, prisoners and the wider community (Kondro, 2007).

Preparation for release

The period following release from prison can be a particularly difficult time for prison inmates with, in particular and as discussed above, an elevated risk of drug-related death. Inmates with a history of drug problems may be particularly vulnerable (Farrell and Marsden, 2008; Merrall et al., 2010; Forsyth et al., 2014; Chang et al., 2015). A meta-analysis of six studies from the UK, Australia and the US found that almost 60 % of deaths among newly released prisoners in the first 12 weeks following release from prison were due to drug-related causes (Merrall et al., 2010), and, another review of mortality over a longer period (up to five years after prison

release), drug-related causes, suicide and homicide have been shown to account for 18 %, 8 % and 9 % of deaths, respectively (Zlodre and Fazel, 2012). Therefore, the importance of preparing prison inmates for release and reintegration back into society cannot be overemphasised (EMCDDA, 2012).

Preparation for release, which should form part of the overall sentence plan, commences when the prison inmate starts his/her sentence and requires input from all staff (WHO, 2007). Pre-release planning is vital for inmates who use drugs as the risks of relapse and overdose post release are high (Merrall et al., 2010; Smyth et al., 2010). A number of steps can be taken to prepare prisoners for release. For example, incorporating into the care plan home leave or conditional release, involvement with self-help groups and training and education about relapse and overdose can help reduce risk factors during and after the release phase (WHO, 2007). In the case of prison inmates who are receiving opioid substitution treatment or undergoing other drug programmes, continuity of care is essential if they are to remain drug free post release. Prior to release, interagency working between services within the prison and those in the community (e.g. mental health units, doctors) is crucial to ensure a seamless transition of care. Continuity of care before, during and after a custodial term is known as throughcare ⁽¹²⁾. Programmes to ensure continuity of care are aligned with the guidance put forward by WHO to encourage the integration of prison and wider public health systems to ensure that support systems such as primary care providers are in place in prison and the community before release (UNODC and WHO, 2013).

Insufficient continuity of care has been identified as a risk factor for overdose post release (Zlodre and Fazel, 2012). To reduce the likelihood of overdose, prisoners should receive counselling on overdose risk and undertake first aid training in the management of overdose (EMCDDA, 2012). Receiving opioid substitution treatment in prison has been shown to act as a protective factor against overdose. Marsden et al. (2017) examined the association between opioid substitution treatment at the time of prison release and risk of death in UK prisoners and found that prisoners participating in opioid substitution treatment programmes at the time of their release were 75 % less likely to die within 1 month of release and were more likely to

⁽¹²⁾ The toolkit 'Throughcare Services for Prisoners with Problematic Drug Use' is available at http://www.throughcare.eu/reports/throughcare_toolkit.pdf

continue their treatment in the community (Marsden et al., 2017). Similar results were found by Degenhardt et al. (2014).

Prisoners and newly released prisoners are considered at high risk of suicide (Pratt et al., 2009; Fazel et al., 2011; EMCDDA, 2012; Zlodre and Fazel, 2012). Suicide is more frequent in drug users (EMCDDA, 2011) and in those who are feeling vulnerable or stressed (Konrad et al., 2007). To overcome the risk of suicide, prison inmates should undertake pre-release and coping skills programmes that target how to survive the sentence and leaving prison (Liebling, 1992). A number of prevention strategies have been identified and include staff training, and screening at intake, post intake and whenever circumstances alter (Konrad et al., 2007).

Implementation of evidence-based intervention in prisons

Challenges to providing interventions for drug users in prison settings

The high prevalence of drug-related issues suffered by prison inmates seems to imply, in theory, that incarceration is a perfect opportunity to provide treatment (McIntosh and Saville, 2006). However, a broad range of challenges can arise that may hinder the provision of interventions for drug users in this setting. First, a prison is a unique environment, with its own regime, culture, characteristics and rules that may impact on how services are delivered and how prisoners engage with interventions (McIntosh and Saville, 2006; Taxman et al., 2009). The commitment of the prison employees to the beliefs and values of the prison estate will be questionable if they lack autonomy and creativeness within their role (Taxman et al., 2009). Employees' commitment will also be influenced by the position they hold, their social and cultural background and how well paid they are. Other challenges within the treatment field can prevent treatment programmes achieving their full potential (Kimberly and McLellan, 2006). For example, employees may not be adequately trained or competent (Hamilton et al., 2015) and, if they are, they may not be sufficiently qualified to adopt evidence-based approaches (Taxman et al., 2009).

The relationship between prison employees and prison inmates influences whether or not an inmate engages with treatment; for example, inmates with negative attitudes that have occurred in response to the prison culture/rules may be reluctant

to engage with staff involved with delivering treatment. Other inmates may have trust issues; some inmates may find it difficult to open up to officers they are familiar with and may feel more at ease with external agencies (McIntosh and Saville, 2006). Lack of motivation can be an issue, and staff involved will need to motivate the inmate by tailoring programmes to suit the needs of the inmate (Hamilton et al., 2015). Another issue that may prevent prison inmates engaging with treatment for drug abuse may be the existence of another condition; serious mental disorders in prison inmates are not a new finding (Fazel et al., 2002), and the prevalence of psychiatric comorbidity in this population ranges from 21 % to 85 % (EMCDDA, 2015a). Other features that are widespread in inmates are boredom, aggression and violence, which can further influence whether or not treatment for drug use is successful (McIntosh and Saville, 2006).

Interagency working allows programmes to be linked with other agencies and services, which should lead to an enhanced service delivery (Taxman et al., 2009; Hamilton et al., 2015). Although difficulties can arise using a multi-agency approach, it is an essential component to delivering continuous care to drug users (Taxman et al., 2009; Hamilton et al., 2015). For example, in Ireland, the Progression Routes Initiative was set up to target obstacles that prevent efficient case management for rehabilitation services. It involved a large number of Irish organisations such as the Health Service Executive (HSE), FÁS (Training and Employment Authority), Dublin City Council, Homeless Agency, Probation and Welfare Services, National Drugs Strategy Team, An Garda Síochána (police force) and voluntary and community organisations working together (DCRGA, 2007). The importance of having organisational structures that provide cohesion, the availability of quality and standard frameworks, and enhanced case management are also considered necessary in the implementation of evidence-based practice (DCRGA, 2007).

Case study: implementing evidence-based practice in Irish prisons

Key characteristics of the approach

How Ireland overcame the challenges of implementing evidence-based practice is closely connected with how drug policy aimed at tackling Ireland's drug problem developed and evolved over time. Attempts to address Ireland's drug problem at a policy and community level were first implemented in the 1970s (e.g. Working Party

on Drug Abuse, 1971; NCCDA, 1986, 1991; Butler, 1991; O'Brien and Moran, 1998). However, it was not until the early 1980s that drug dependence was identified as an area of concern within the judicial system; since then, many offenders with drug problems have passed through the Irish system (IPS, 2000).

To address the problem, a steering group was established to review prison-based drug treatment services (IPS, 2000). The findings of the review resulted in a number of recommendations with regard to a number of areas, such as policy, staffing, training, implementation and interagency working (IPS, 2000). In response to this review, the Irish Prison Service published a drugs policy strategy, *Keeping drugs out of prisons* (IPS, 2006). First, this document acknowledged that drug abuse was best treated by utilising a multifaceted range of evidence-based practices. Second, it outlined the strategic approach the Irish Prison Service would take to tackle the problem (IPS, 2006). Though the implementation of this document is ongoing and continues to evolve (Clarke and Eustace, 2016), it has informed subsequent actions that have helped Ireland overcome challenges that can hinder the implementation of evidence-based practice. What follows is a brief outline of the changes that have been introduced to organisation structures that enhance the use of evidence-based practice within the judicial system.

Interagency working. Interagency working is considered an important part of providing continuous care to drug users (DCRGA, 2007). In Ireland, offender management in the community and in prison is the responsibility of the Probation Service and the Irish Prison Service respectively. Centred on recommendations for enhanced collaboration with other agencies, the Probation Service and Irish Prison Service have produced a joint strategic plan for 2015-2017. Both organisations use a multiagency approach to the management and rehabilitation of offenders and acknowledge that a connection exists between substance abuse and offending behaviour (PS and IPS, 2015). They are committed to working with each other and with other services, such as the Health and Safety Executive and community-based organisations, to ensure that offenders have access to services that target prevention, treatment and harm reduction (Clarke and Eustace, 2016; IPS, 2016).

Employee competence and training. The skillset of employees delivering programmes has been identified as an area that can affect the outcomes of

evidence-based programmes (Taxman et al., 2009; Hamilton et al., 2015). Employee development was identified as essential in the Irish Prison Service drug policy and strategy, which aims to build on existing practices (IPS, 2006). Currently, health teams can be accessed in all prisons; some staff are qualified to treat addiction and other practitioners are interested in the field and are familiar with care pathways available in the prison setting (Clarke and Eustace, 2016).

Enhanced case management. This has been identified as part of the model of effective practice that has been put forward by Clarke and Eustace (2016).

Evaluation. Evaluating the effectiveness and impact of evidence-based practice is viewed as an essential component of training guidelines and information obtained is used to update and improve intervention programmes already in place (IPS, 2006).

Quality and standard frameworks. Healthcare standards were developed by the IPS in 2011. The standards aim to guide governors and managers with regard to the provision of health services and associated facilities needed to provide them (IPS, 2011). Health Care Standard 9, which refers to drug treatment services, outlines the main guidance for the provision of clinical services for the assessment, treatment and care of individuals who misuse drugs (IPS, 2011).

Assessing the impact

Although changes have been implemented in the Irish justice system, the impact of these is only slowly emerging and is ongoing. Both the Irish Prison Service and Probation Service in Ireland acknowledge the association between drugs, crime and recidivism and are committed to creating a system that targets drug-related problems in prison inmates. In a 2016 review, it was reported that together they have a combined budget of EUR 3.33 million for the provision of addiction services to prison inmates (Clarke and Eustace, 2016). This review also indicated that there are health teams in all Irish prisons, with some employees and clinicians having addiction qualifications. Joint strategies are in place and have resulted in a more cohesive and coordinated ways of managing health issues in general and those related to drugs. The current approach is a mixed layered one that combines community residential treatment with other treatments, such as detoxification in prison, methadone treatment, one-to-one and group addiction counselling, CBT, therapeutic

communities, 12-step programmes, harm reduction and relapse prevention (Clarke and Eustace, 2016).

However, Clarke and Eustace (2016) acknowledge that, despite the strong focus on drug addiction, there are problems that still need to be addressed. First, the recent shift in drug use from opiate-based drugs to benzodiazepines and new psychoactive substances has created issues for treatment as these drugs are harder to detect and appropriate treatment provision, particularly for NPS have yet to be developed. Secondly, harm reduction strategies still need further development across the prison estate (Clarke and Eustace, 2016). One programme that has operated under the partnership of the Red Cross, Irish Prison Service and Education and Training Boards Ireland is the community-based health and first aid (CBHFA) programme, a health and education harm reduction programme that aims to improve health, hygiene and first aid (Betts-Symonds and O'Halloran, 2010). Although the programme has been delivered to communities worldwide, Ireland was the first country to deliver the programme in prison settings (IPS et al., 2017). The programme is delivered over 4-6 months to Red Cross volunteer prison inmates, who then, in partnership with support staff, work on a peer-to-peer basis to increase awareness of and carry out projects aimed at increasing well-being in prison (Betts-Symonds, 2012). Such projects are varied and have included personal, in-cell and prison hygiene awareness; HIV and AIDS awareness; and overdose prevention programmes (IPS et al., 2017). The impact of the programme was illustrated by the number and type of projects that emerged in each prison (for an overview, see Annex 1 in Betts-Symonds, 2012). These projects, together with the involvement of volunteer prison inmates, have contributed to achieving the Irish Prison Service healthcare standards (^{13,14}). In addition, the programme has had positive effects on the volunteer prison inmates, resulting in increased focus, confidence, pride and self-worth. Volunteers report improved relationships with peers and staff and that they became multi-skilled and developed new and changed beliefs along with a desire to

⁽¹³⁾ See Betts-Symonds (2012) (Table 6, p. 57) for an overview of volunteer contributions — available at <https://www.redcross.ie/wp-content/themes/twentyfourteen/download1.php?filename=/2015/07/cbhfa-3-year-evaluation-report-dec-2012.pdf>

⁽¹⁴⁾ 2011 Irish Prison Service healthcare standards available at http://www.irishprisons.ie/wp-content/uploads/documents/hc_standards_2011.pdf

be of assistance to others (Betts-Symonds, 2012). Finally, the success of this programme ⁽¹⁵⁾ in prison settings has resulted in a number of awards ⁽¹⁶⁾.

Future developments and opportunities and implications for policy and practice

Harm reduction programmes are one of the main responses to drug-related issues in 57 % of countries worldwide that report on injecting drug use (Cook et al., 2016). Despite support for harm reduction programmes by all EU Member States (Stone, 2016), Cook et al. (2016) suggest that such programmes are failing to achieve their full potential and to target the particular needs of the populations they address, notably prisoners. In general, the delivery of prison health services has been shown to vary extensively across Europe, with little or no evaluation or monitoring, which is an issue (EMCDDA, 2012). Monitoring the problems and prevalence of injecting drug use is viewed as an essential feature of any attempt by EU Member States to prevent drug-related harm (ECDC and EMCDDA, 2011) and these efforts need to include people with drug problems in custodial settings. As a result, the EMCDDA has produced a monitoring framework, which includes key indicator protocols and toolkits to help Member States achieve this. Data are gathered via standardised monitoring tools such as data tables and structured questionnaires regarding health and social responses to drug use, harm reduction and actions taken to prevent infectious diseases (ECDC and EMCDDA, 2011) ⁽¹⁷⁾. Using a standardised approach allows the EMCDDA to collate data that are objective, reliable and comparable regarding drug-related prison health across Europe (EMCDDA, 2012).

Another consequence that will stem from improved monitoring is that prevalence data for drug-related health conditions will be more informative, which will in turn inform policy and how harm reduction programmes should respond at national level (Dolan, 2016).

⁽¹⁵⁾ Further examples and information about the programme are available at <https://www.redcross.ie/wp-content/themes/twentyfourteen/download1.php?filename=/2017/01/CBHFA-Irish-Support-Information-Pack-January-2017.pdf>

⁽¹⁶⁾ Awards information available at <https://www.redcross.ie/news-and-events/fourth-award-for-prison-programme/>

⁽¹⁷⁾ Key indicators available at <http://www.emcdda.europa.eu/activities/key-indicators>

Although practitioners have been evaluating treatment process, few have evaluated treatment outcomes. The evidence base in this area is still emerging; it is recommended that programme delivery should be accompanied by outcome evaluations, as this will result in a stronger evidence base while also enhancing the work done with offenders who abuse drugs in Europe (Hamilton et al., 2015).

A lack of resources and funding can have implications for harm reduction programmes. For example, Sander et al. (2016) found that the financial crisis affected all EU countries with a decline in government funding leading to extensive cutbacks in all areas of public spending, resulting in programmes being discontinued. Furthermore, funding from international donors is also decreasing (Cook, 2016).

References

Aebi, M. F., Tiago, M. M. and Burkhardt, C. (2017), *SPACE I — Council of Europe Annual Penal Statistics: prison populations, survey 2015*, Council of Europe, Strasbourg (available at http://www.drugsandalcohol.ie/27027/1/COE_SPACE_I_2015_Report.pdf).

Allen, C. (2005), 'The links between heroin, crack cocaine and crime: where does street crime fit in?', *The British Journal of Criminology*, 45(3), pp. 355-372, doi: 10.1093/bjc/azi001.

Anders, P., Jolley, R. and Leaman, J. (2017), *Rebalancing act: a resource for Directors of Public Health, Police and Crime Commissioners, the police service and other health and justice commissioners, service providers and users*, Home Office and Public Health England, UK (available at <http://www.revolving-doors.org.uk/file/2050/download?token=m-t2NRKC>).

Babudieri, S., Longo, B., Sarmati, L., Starnini, G., Dori, L., Suligoj, B., Carbonara, S., et al. (2005), 'Correlates of HIV, HBV, and HCV infections in a prison inmate population: results from a multicentre study in Italy', *Journal of Medical Virology*, 76(3), pp. 311-317, doi: 10.1002/jmv.20375.

Baillargeon, J., Penn, J. V., Thomas, C. R., Temple, J. R., Baillargeon, G. and Murray, O. J. (2009), 'Psychiatric disorders and suicide in the nation's largest state prison system', *The Journal of the American Academy of Psychiatry and the Law*, 37, pp. 188-93 (available at https://www.researchgate.net/profile/Jeff_Temple/publication/26300549_Psychiatric_Disorders_and_Suicide_in_the_Nation's_Largest_State_Prison_System/links/545ce7880cf2c1a63bfa5927.pdf).

Bean, P. (2014), *Drugs and crime, 4th edition*, Routledge, New York.

Betts-Symonds, G. (2012), *Community based health and first aid in action in Irish prison: three year evaluation*, Irish Prison Service, City of Dublin Vocational Education Committee and Irish Red Cross, Ireland (available online at <https://www.redcross.ie/wp-content/themes/twentyfourteen/download1.php?filename=/2015/07/cbhfa-3-year-evaluation-report-dec-2012.pdf>).

Betts-Symonds, G. and O'Halloran, L. (2010), *CBHFA in action sensitization course*. International Federation of the Red Cross, Geneva (available at <https://www.redcross.ie/wp-content/themes/twentyfourteen/download1.php?filename=/2015/07/cbhfa-sensitization-course-report-nov-2010-doc.pdf>).

Bonnycastle, K. D. (2011), 'The social organisation of penal tattooing in two Canadian federal male prisons: locating sites of risk for empirically-based health care interventions', *The Howard Journal of Criminal Justice*, 50(1), pp. 17-33, doi:10.1111/j.1468-2311.2010.00632.x.

Borill, J., Maden, A., Martin, A., Weaver, T., Stimson, G., Farrell, M., Barnes, T., et al. (2003), 'Substance abuse among white and black/mixed race female prisoners', pp. 47-70, in Ramsey, M. (ed.), *Prisoners' drug use and treatment: seven research studies*, Home Office Research, Development and Statistics Directorate, London.

Bukten, A., Stavseth, M. R., Skurtveit, S., Tverdal, A., Strang, J. and Clausen, T. (2017), 'High risk of overdose death following release from prison: variations in mortality during a 15-year observation period', *Addiction*, 112(8), pp. 1432-1439, doi:10.1111/add.13803.

Burrows, J., Clarke, A., Davison, T., Tarling, R., Webb, S. and Harris, M. (2001), *Research into the nature and effectiveness of drugs throughcare*, Home Office Research, Development and Statistics Directorate, London (available at https://www.researchgate.net/publication/37145855_Research_into_the_nature_and_effectiveness_of_drugs_throughcare).

Butler, S. (1991), 'Drug problems and drug policies in Ireland: a quarter of a century reviewed', *Administration*, 29(3), pp. 210-233 (available at <http://www.drugsandalcohol.ie/6544/1/508-0443.pdf>).

Carpentier, C., Royuela, L., Montanari, L. and Davis, P. (2017), 'The global epidemiology of drug use in prison', in Kinner, S. A. and Rich J. D. J. (eds.), *Drug use in prisoners: epidemiology, implications, and policy responses*, Oxford University Press.

Centre for Social Justice (2015), *Drugs in prison*, Centre for Social Justice, UK (available at https://www.centreforsocialjustice.org.uk/core/wp-content/uploads/2016/08/CSJJ3090_Drugs_in_Prison.pdf).

Chang, Z., Lichtenstein, P., Larsson, H. and Fazel, S. (2015), 'Substance use disorders, psychiatric disorders, and mortality after release from prison: a nationwide longitudinal cohort study', *The Lancet*, 2(5), pp. 422-430, doi:10.1016/S2215-0366(15)00088-7.

Clarke, A. and Eustace, A. (2016), *Review of drug and alcohol treatment services for adult offenders in prison and in the community*, Probation Service and Irish Prison Service, Dublin (available at http://www.justice.ie/en/JELR/Pages/Review_of_Drug_and_Alcohol_Treatment_Services_for_Adult_Offenders_in_Prison_and_in_the_Community).

Cook, C. (2017), *Harm reduction investment in the European Union: Current spending, challenges and successes*. Harm Reduction International, Oxford (available at: https://www.hri.global/files/2017/04/25/HRWreportApril2017_web_1.pdf)

Cook, C., Phelan, M., Sander, G., Stone, A. and Murphy, F. (2016), *The case for a harm reduction decade: progress, potential and paradigm shifts*, Harm Reduction International, Oxford (available at https://www.hri.global/files/2016/03/10/Report_The_Case_for_a_Harm_Reduction_Decade.pdf).

Council of the European Union (2003), 'Council Recommendation of 18 June 2003 on the prevention and reduction of health-related harm associated with drug dependence', *Official Journal of the European Union* L165, 3.7.2003, pp. 31-33 (available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32003H0488>).

Council of the European Union (2008), 'EU drugs action plan for 2009-2012', *Official Journal of the European Union* L326, 20.12.2008, pp. 7-25 (available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52008XG1220%2801%29>).

Dara, M., Chorgoliani, D. and de Colombani, P. (2014), 'Chapter 8: TB prevention and control care in prisons', pp. 56-73, in World Health Organization (WHO), *Prisons and health*, WHO, Denmark (available at <http://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/publications>).

Degenhardt, L., Larney, S., Kimber, J., Gisev, N., Farrell, M., Dobbins, T., Weatherburn, D. J., et al. (2014), 'The impact of opioid substitution therapy on mortality post-release from prison: retrospective data linkage study', *Addiction research report*, 109(8), pp. 1-12, doi:10.1111/add.12536.

Department of Community, Rural and Gaeltacht Affairs (DCRGA) (2007), *National drugs strategy 2001-2008: rehabilitation – report of the working group on drugs rehabilitation*, DCRGA, Ireland (available at <http://www.drugsandalcohol.ie/6267/>).

Dolan, K., Wirtz, A. L., Moazen, B., Ndeffo-mbah, M., Galvani, A., Kinner, S. A., Courtney, R., et al. (2016), 'HIV and related infections in prisoners 1: global burden of HIV, viral hepatitis, and tuberculosis in prisoners and detainees', *The Lancet*, 388(10049), pp. 1089-1102, doi: 10.1016/S0140-6736(16)30466-4.

ECDC (European Centre for Disease Prevention and Control) and European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2011), *Prevention and control of infectious diseases among people who inject drugs*, ECDC and EMCDDA, Stockholm (available at http://emcdda.europa.eu/publications/ecdc-emcdda-guidance_en).

EMCDDA (2010), *Harm reduction: evidence, impacts and challenges*, Publications Office of the European Union, Luxembourg (available at http://www.emcdda.europa.eu/publications/monographs/harm-reduction_en).

EMCDDA (2011), *Mortality related to drug use in Europe: public health implications — selected issue*, Publications Office of the European Union, Luxembourg (available at http://www.emcdda.europa.eu/publications/selected-issues/mortality_en).

EMCDDA (2012), *Prisons and drugs in Europe: the problem and responses — selected issue*, Publications Office of the European Union, Luxembourg (available at http://www.emcdda.europa.eu/publications/selected-issues/prison_en).

EMCDDA (2014), *Drug use in prison: assessment report — reviewing tools for monitoring illicit drug use in prison populations in Europe*, Publications Office of the European Union, Luxembourg (available at http://www.emcdda.europa.eu/publications/drug-use-in-prison-assessment-report_en).

EMCDDA (2015a), *Comorbidity of substance use and mental disorders in Europe*, Publications Office of the European Union, Luxembourg (available at <http://www.emcdda.europa.eu/publications/insights/comorbidity-substance-use-mental-disorders-europe>).

EMCDDA(2015b), *Mortality among drug users in Europe: new and old challenges for public health*, Publications Office of the European Union, Luxembourg (available at http://www.emcdda.europa.eu/publications/emcdda-papers/mortality-among-drug-users-in-europe_en).

EMCDDA (2016a), *European Drug Report 2016: trends and developments*, Publications Office of the European Union, Luxembourg (available at <http://www.emcdda.europa.eu/publications/edr/trends-developments/2016>).

EMCDDA (2016b), *Drug-related infectious diseases in Europe: update from the EMCDDA expert network*, Publications Office of the European Union, Luxembourg (available at <http://www.emcdda.europa.eu/publications/rapid-communications/2016/drug-related-infectious-diseases-in-europe>).

EMCDDA (2016c), *Health responses to new psychoactive substances*, Publications Office of the European Union, Luxembourg (available at http://www.emcdda.europa.eu/publications/rapid-communications/nps-responses_en).

EMCDDA (2017a), *Finland — Country Drug Report 2017*, Publications Office of the European Union, Luxembourg.

- EMCDDA (2017b), *European Drug Report 2017: trends and developments*, Publications Office of the European Union, Luxembourg (available at <http://www.emcdda.europa.eu/publications/edr/trends-developments/2017>).
- Farrell, M. and Marsden, J. (2008), 'Acute risk of drug-related death among newly released prisoners in England and Wales', *Addiction*, 103(2), pp. 251-255, doi:10.1111/j.1360-0443.2007.02081.x.
- Fazel, S. and Benning, R. (2006), 'Natural deaths in male prisoners: a 20-year mortality study', *European Journal of Public Health*, 16(4), pp. 441-444.
- Fazel, S. and Danesh, J. (2002), 'Serious mental disorder in 23 000 prisoners: a systematic review of 62 surveys', *The Lancet*, 359(9306), pp. 545-550.
- Fazel, S. and Seewald, K. (2012), 'Severe mental illness in 33 588 prisoners worldwide: systematic review and meta-regression analysis', *The British Journal of Psychiatry*, 200, pp. 364-372, doi: 10.1192/bjp.bp.111.096370.
- Fazel, S., Benning, R. and Danesh, J. (2005), 'Suicides in male prisoners in England and Wales, 1978–2003', *The Lancet*, 366 (9493), pp. 1301-1302, doi:10.1016/S0140-6736(05)67325-4.
- Fazel, S., Bains, P. and Doll, H. (2006), 'Substance abuse and dependence in prisoners: a systematic review', *Addiction*, 101(2), pp. 181-191, doi:10.1111/j.1360-0443.2006.01316.x.
- Fazel, S., Grann, M., Kling, B. and Hawton, K. (2011), 'Prison suicide in 12 countries: an ecological study of 861 suicides during 2003–2007', *Social Psychiatry and Psychiatric Epidemiology*, 46(3), pp. 191-195, doi: 10.1007/s00127-010-0184-4.
- Fletcher, B. W., Lehman, W. E. K., Wexler, H. K., Melnick, G., Taxman, F. S. and Young, D. W. (2009), 'Measuring collaboration and integration activities in criminal justice and substance abuse treatment agencies', *Drug and Alcohol Dependence*, 103, Supplement 1, S54-64, doi:10.1016/j.drugalcdep.2009.01.001.
- Forsyth, S. J., Alati, R., Ober, C., Williams, G. M. and Kinner, S. A. (2014), 'Striking subgroup differences in substance-related mortality after release from prison', *Addiction*, 109(10), pp. 1676-1683, doi:10.1111/add.12646.
- Hamilton, L., Koehler, J. A. and Losel, F. (2015), 'Treatment programmes for substance abusing offenders in Europe: a survey of routine practice', *European Journal on Criminal Policy and Research*, 21(3), pp. 371-84, doi: 10.1007/s10610-014-9255-5.
- Hedrich, D., Alves, P., Farrell, M., Stöver, H., Møller, L. and Mayet, S. (2012), 'The effectiveness of opioid maintenance treatment in prison settings: a systematic

review: opioid maintenance in prison', *Addiction*, 107(3), pp. 501-517, doi: 10.1111/j.1360-0443.2011.03676.x.

Hellard, M. E., Aitken, C. K. and Hocking, J. S. (2007), 'Tattooing in prisons — not such a pretty picture', *American Journal of Infection Control*, 35(7), pp. 477-480, doi:10.1016/j.ajic.2006.08.002.

Hiller, M. L., Webster, J. M., Narevic, E., Staton, M., Garrity, T. F. and Leukefeld, C. (2005), 'Prisoners with substance abuse and mental health problems: use of health and health services', *The American Journal of Drug and Alcohol Abuse*, 31(1), pp. 1-20, doi: 10.1081/ADA-200037552.

HMIP (HM Inspectorate of Prisons) (2015), *Changing patterns of substance misuse in adult prisons and service responses: a thematic review*, HMIP, London (available from <https://www.justiceinspectorates.gov.uk/hmiprisons/inspections/changing-patterns-of-substance-misuse-in-adult-prisons-and-service-responses/>).

HMIP (2016), *Annual Report 2015-16*, HMIP, London (available at <https://www.gov.uk/government/publications/hm-chief-inspector-of-prisons-annual-report-2015-to-2016>).

HMIP (2017), *Annual Report 2016-17*, HMIP, London (available at <https://www.gov.uk/government/publications/hm-chief-inspector-of-prisons-annual-report-2016-to-2017>).

IPS (Irish Prison Service) (2000), *Report of the steering group on prison-based drug-treatment services*, IPS, Dublin (available at <http://www.drugsandalcohol.ie/5264/>).

IPS (2006), *Keeping drugs out of prisons: drug policy and strategy*, IPS, Dublin (available at http://www.emcdda.europa.eu/attachements.cfm/att_139120_EN_IE04_IPS_Drugs_Policy_And_Strategy.pdf).

IPS (2011), *Health care standards*, IPS, Dublin (available at http://www.irishprisons.ie/wp-content/uploads/documents/hc_standards_2011.pdf).

IPS (2016), *Annual Report 2015*, IPS, Longford (available at http://www.irishprisons.ie/wp-content/uploads/documents_pdf/12232-Irish-Prison-Service-AnnualReport2015-v7-2.pdf).

IPS, Education and Training Boards Ireland (ETBI) and Irish Red Cross (2017), *Community based health and first aid prison programme: Irish support information pack*, IPS, ETBI and Irish Red Cross, Ireland (available at <https://www.redcross.ie/wp-content/themes/twentyfourteen/download1.php?filename=/2017/01/CBHFA-Irish-Support-Information-Pack-January-2017.pdf>).

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C., Hughes, M., Eshleman, S., Wittchen, H. U., et al. (1994), 'Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States — results from the National Comorbidity Survey', *Archives of General Psychiatry*, 51(1), pp. 8-19 (available at <https://www.ncbi.nlm.nih.gov/pubmed/8279933/>).

Kimberly, J. R. and McLellan, A. T. (2006), 'The business of addiction treatment: a research agenda', *Journal of Substance Abuse Treatment*, 31(3), pp. 213-219.

Koehler, J. A., Humphreys, D. K., Akoensi, T. D., Sánchez, D. R. and Lösel, F. (2014), 'A systematic review and meta-analysis on the effects of European drug treatment programmes on reoffending', *Psychology, Crime & Law*, 20(6), pp. 584-602, doi:10.1080/1068316X.2013.804921.

Kolind, T. and Duke, K. (2016), 'Drugs in prisons: exploring use, control, treatment and policy', *Drugs: Education, Prevention and Policy*, 23(2), pp. 89-92, doi:10.3109/09687637.2016.1153604.

Kondro, W. (2007), 'Report supports cost-effective prison tattoo program', *Canadian Medical Association Journal*, 176(4), pp. 433-434, doi: 10.1503/cmaj.070095.

Konrad, N., Daigle, M. S., Daniel, A. E., Dear, G. E., Frottier, P., Hayes, L. M., Kerkhof, A., et al. (2007), 'Preventing suicide in prisons, Part I — recommendations from the International Association for Suicide Prevention Task Force on Suicide in Prisons', *Crisis*, 28(3), pp. 113-121, doi:10.1027/0227-5910.28.3.113.

Larney, S. and Dolan, K. (2009), 'A literature review of international implementation of opioid substitution treatment in prisons: equivalence of care', *European Addiction Research*, 15, pp. 107-112, doi 10.1159/000199046.

Larney, S., Lai, W., Dolan, K. and Zador, D. (2016), 'Monitoring a prison opioid treatment program over a period of change to clinical governance arrangements, 2007–2013', *Journal of Substance Abuse Treatment*, 70, pp. 58-63, doi:10.1016/j.jsat.2016.08.001.

Leibling, A. (1992), *Suicides in prison*, Routledge, London.

Light, M., Grant, E. and Hopkins, K. (2013), *Gender differences in substance misuse and mental health amongst prisoners: results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners*, Ministry of Justice, UK (available at <https://www.gov.uk/government/publications/gender-differences-in-substance-misuse-and-mental-health-amongst-prisoners--2>).

Lines, R., Jürgens, R., Stöver, H., Kaliakbarova, G., Laticevschi, D. and Nelles, J. (2004), 'The Dublin declaration on HIV/AIDS in Prisons in Europe and Central Asia',

Conference proceedings: breaking the barriers — partnership in the fight against HIV/AIDS in Europe and Central Asia, Dublin Castle, Ireland 23-24 February, 2004.

Long, J., Allwright, S., Barry, J., Reaper-Reynolds, S., Thornton, L., Bradley, F. and Parry, J. V. (2001), 'Prevalence of antibodies to hepatitis B, hepatitis C, and HIV and risk factors in entrants to Irish prisons: a national cross sectional survey', *British Medical Journal*, 323(7323), pp. 1209-13 (available at <http://www.bmj.com/cgi/reprint/323/7323/1209>).

Lukasiewicz, M., Falissard, B., Michel, L., Neveu, X., Reynaud, M. and Gasquet, I. (2007), 'Prevalence and factors associated with alcohol and drug-related disorders in prison: a French national study', *Substance Abuse Treatment, Prevention, and Policy*, 2(1), p. 1, doi:10.1186/1747-597X-2-1.

Lynch, S. M., DeHart, D. D., Belknap, J. E., Green, B. L., Dass-Brailsford, P., Johnson K. A. and Whalley, E. (2014), 'A multisite study of the prevalence of serious mental illness, PTSD, and substance use disorders of women in jail', *Psychiatric Services*, 65(5), pp. 670-674, doi:10.1176/appi.ps.201300172.

Marsden, J., Stillwell, G., Jones, H., Cooper, A., Eastwood, B., Farrell, M., Lowden, T., et al. (2017), 'Does exposure to opioid substitution treatment in prison reduce the risk of death after release? A national prospective observational study in England: prison-based OST and mortality after release', *Addiction*, doi:10.1111/add.13779.

McIntosh, J. and Saville, E. (2006), 'The challenges associated with drug treatment in prison', *Probation Journal*, 53(3), pp. 230-247, doi:10.1177/0264550506063570.

Merrall, E. L. C., Kariminia, A., Binswanger, I. A., Hobbs, M. S., Farrell, M., Marsden, J., Hutchinson, S. J., et al. (2010), 'Meta-analysis of drug-related deaths soon after release from prison', *Addiction*, 105(9), pp. 1545-1554, doi:10.1111/j.1360-0443.2010.02990.x.

Mills, H., Skodbo, S. and Blyth, P. (2013), *Understanding organised crime: estimating the scale and the social and economic costs — Research Report 73*, Home Office, UK (available at <https://www.gov.uk/government/publications/understanding-organised-crime-estimating-the-scale-and-the-social-and-economic-costs>).

Ministry of Justice (2016), *Deaths of offenders in the community 2015/16 — annual statistics bulletin — England and Wales*, Ministry of Justice, UK (available at <https://www.gov.uk/government/statistics/deaths-of-offenders-in-the-community-annual-statistics-bulletin-2015-to-2016>).

Mitchell, O., Wilson, D. B. and MacKenzie, D. L. (2007), 'Does incarceration-based drug treatment reduce recidivism? A meta-analytic synthesis of the research',

Journal of Experimental Criminology, 3(4), pp. 353-375, doi:10.1007/s11292-007-9040-2.

Montanari, L., Royuela, L. and Hedrich, D. (2016), *European summer school illicit drugs in Europe: demand, supply and public policies* (presentation), EMCDDA, Lisbon.

NCCDA (National Co-ordinating Committee on Drug Abuse) (1986), *National Co-ordinating Committee on Drug Abuse: first annual report*, Stationery Office, Dublin.

NCCDA (1991), *Government strategy to prevent drug misuse*, Department of Health, Dublin (available at <http://www.drugsandalcohol.ie/5134/1/585-015NationalCoordinating.pdf>).

NOMS (National Offender Management Service), PHE (Public Health England) and NHS National Health Service) England (2015), *National partnership agreement for the co-commissioning and delivery of healthcare services in prisons in England (2015-2016)*, NOMS, PHE and NHS England, UK (available at <https://www.england.nhs.uk/commissioning/health-just/hj-resources/>).

O'Brien, M. and Moran, R. (1998), *Overview of drug issues in Ireland 1997: a resource document*, Health Research Board, Dublin.

Pallijan, T. Z., Mužinić, L. and Radeljak, S. (2009), 'Psychiatric comorbidity in forensic psychiatry', *Psychiatria Danubina*, 21(3), pp. 429-436 (available at <http://hrcak.srce.hr/file/75955>).

Pearson, F. S. and Lipton, D. S. (1999), 'A meta-analytic review of the effectiveness of corrections-based treatments for drug abuse', *The Prison Journal*, 79(4), pp. 384-410, doi:10.1177/0032885599079004003.

Pratt, D., Appleby, L., Piper, M., Webb, R. and Shaw, J. (2009), 'Suicide in recently released prisoners: a case-control study', *Psychological Medicine*, 40(5), pp. 827-835, doi: 10.1017/S0022191709991048,

PHE (Public Health England) (2014), *Frequently asked questions (FAQs) to support the opt-out BBV testing policy*, PHE, London (available at <http://www.hcvaction.org.uk/resource/frequently-asked-questions-faqs-support-opt-out-bbv-testing-policy>).

PHE (2015), *New psychoactive substances (NPS) in prisons: a toolkit for prison staff*, PHE, London (available at [http://www.nta.nhs.uk/uploads/new-psychoactive-substances-in-prisons\[0\].pdf](http://www.nta.nhs.uk/uploads/new-psychoactive-substances-in-prisons[0].pdf)).

PHE (2017), *Hepatitis C in England 2017 report*, PHE, London (available at <https://www.gov.uk/government/publications/hepatitis-c-in-the-uk>).

PHE and World Health Organization (WHO) (2015), *Public Health England Health and Justice report 2014*, PHE and WHO, London (available at <https://www.gov.uk/government/publications/prison-health-health-and-justice-annual-report>).

PS (Probation Service) and IPS (Irish Prison Service) (2015), *Joint Irish prison service & Probation Service strategic plan 2015-2017*, PS and IPS, Ireland (available at http://www.irishprisons.ie/images/pdf/jointstrat_english.pdf).

Rabe, K. (2012), 'Prison structure, inmate mortality and suicide risk in Europe', *International Journal of Law and Psychiatry*, 35(3), pp. 222-230, doi:10.1016/j.ijlp.2012.02.012.

Ramsey, M. (2003), *Prisoners' drug use and treatment: seven research studies – Home Office research study 267*, Home Office Research, Development and Statistics Directorate, UK (available at <http://www.dldocs.stir.ac.uk/documents/hors267.pdf>).

Rotily, M., Weilandt, C., Bird, S. M., Kall, K., Van Haastrecht, H. J. A., Landolo, E. and Rousseau, S. (2001), 'Surveillance of HIV infection and related risk behaviour in European prisons: a multicentre pilot study', *European Journal of Public Health*, 11(3), pp. 243-250, doi:10.1093/eurpub/11.3.243.

Rumble, C., Pevalin, D. J. and O'Moore, E. (2015), 'Routine testing for blood-borne viruses in prisons: a systematic review', *European Journal of Public Health*, 25(6), pp. 1078-1088, doi:10.1093/eurpub/ckv133.

Sander, G., Scandurra, A., Kamenska, A., MacNamara, C., Kalpaki, C., Bessa, C. F., Laso, G. N., et al. (2016), 'Overview of harm reduction in prisons in seven European countries', *Harm Reduction Journal*, 13(1), 28, doi:10.1186/s12954-016-0118-x.

Shaw, J., Baker, D., Hunt, I. M., Moloney, A. and Appleby, L. (2004), 'Suicide by prisoners: national clinical survey', *The British Journal of Psychiatry*, 184, pp. 263-267, doi: 10.1192/bjp.184.3.263.

Smyth, B. P., Barry, J., Keenan, E. and Ducray, K. (2010), 'Lapse and relapse following inpatient treatment of opiate dependence', *Irish Medical Journal*, 103(6), pp. 176-179 (available at <http://hse.openrepository.com/hse/bitstream/10147/110022/1/Article5260.pdf>).

Stallwitz, A. and Stöver, H. (2007), 'The impact of substitution treatment in prisons — a literature review', *International Journal of Drug Policy*, 18, pp. 464-474, doi:10.1016/j.drugpo.2006.11.015.

Stone, K. (2016), *The global state of harm reduction 2016*, Harm Reduction International, London (available at <https://www.hri.global/global-state-of-harm-reduction-reports>).

Taxman, F. S., Henderson, C. E. and Belenko, S. (2009), 'Organizational context, systems change, and adopting treatment delivery systems in the criminal justice system', *Drug and Alcohol Dependence*, 103, S1-6, doi: 10.1016/j.drugalcdep.2009.03.003.

Rehabilitation for Addicted Prisoners Trust (2015), *Research and policy briefing series, no. 4: tackling the issue of new psychoactive substances in prisons*, RAPt, London (available at <https://www.forwardtrust.org.uk/about-us/research-and-publications/>).

Todts, S. (2014), 'Infectious diseases in prison', in Enggist, S., Moller, L., Galea, G. and Udesen, C. (eds.), *Prisons and health*, World Health Organization, Copenhagen (available at <http://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/publications>).

Treloar, C., McCredie, L. and Lloyd, A. R. (2015), 'Acquiring hepatitis C in prison: the social organisation of injecting risk', *Harm Reduction Journal*, 12(1), 10, doi:10.1186/s12954-015-0045-2.

Ugelvik, T. (2014), 'The incarceration of foreigners in European prisons', in Pickering, S. and Ham, J. (eds.), *The Routledge handbook on crime and international migration*, Criminal Justice, Borders and Citizenship Research Paper Series, Routledge, Abingdon-on-Thames.

UNODC (United Nations Office on Drugs and Crime) and World Health Organization (WHO) (2013), *International standards on drug use prevention*, United Nations, New York (available at <https://www.unodc.org/unodc/en/prevention/prevention-standards.html>).

Wheatley, M. (2007), 'Drug misuse in prison', in Jewkes, Y. (ed.), *Handbook on prisons*, pp 399-422, Willan Publishing, New York.

WHO (World Health Organization) (2005), *Status paper on prisons: drugs and harm reduction*, WHO, Denmark (available at <http://apps.who.int/iris/handle/10665/107641>).

WHO (2007), *Health in prisons: A WHO guide to the essentials in prison health*, WHO, Denmark (available at <http://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/publications>).

WHO (2009), *Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence*, WHO, Geneva (available at http://www.who.int/substance_abuse/publications/9789241547543/en/).

WHO (2014), *Prisons and health*, WHO, Denmark (available at <http://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/publications>).

WHO, UNODC and Joint United Nations Programme on HIV and AIDS (UNAIDS) (2007), *Interventions to address HIV in prisons: drug dependence treatments*, WHO, Geneva (available at http://www.who.int/hiv/pub/prisons/prisons_drug_depend/en/).

Working Party on Drug Abuse (1971), *Report of the Working Party on Drug Abuse*, Stationery Office, Dublin (available at <http://www.drugsandalcohol.ie/5154/>).

Zlodre, J. and Fazel, S. (2012), 'All-cause and external mortality in released prisoners: systematic review and meta-analysis', *American Journal of Public Health*, 102(12), e67-e75, doi:10.2105/AJPH.2012.300764.