SCCJR
The Scottish Centre for Crime & Justice Research

Research Report No.05/2011 www.sccjr.ac.uk

Interventions for Drug Users in the Criminal Justice System: Scottish Review

Margaret Malloch
(SCCJR, University of Stirling)

November 2011

Acknowledgements

This report was produced for the Scottish Government. Thanks to Julie Carr and Dawn Abell, Scottish Government and to Gill McIvor, SCCJR for advice and constructive comments.

CONTENTS

EXECUTIVE SUMMARY

The purpose of this review was to examine the available research evidence on criminal justice interventions in Scotland in terms of '**effectiveness**', (measured by rates of reconviction/reoffending, and reductions in drug use) and **costs**. The review also recognises the current policy emphasis on '**recovery**', which requires a wider acknowledgement of the possible mechanisms for measuring 'success' and a wider vision for the process of recovery itself. The review was undertaken between August and November 2010.

- This review found that there are a number of difficulties in determining effectiveness in the area of drug interventions - sample numbers within evaluations are often small, the nature of interventions make it difficult to identify control groups and therefore to isolate factors making an impact or indeed, to measure the overall impact of the intervention itself; change often comes from a number of different factors; different methods are often used to measure different outcomes over different periods of time making it impossible to compare effectiveness across interventions. The existence of major gaps in the evidence base for drug interventions is acknowledged internationally.

- In spite of these limitations, some broad observations can be made from the evidence currently available and which has been considered as part of this review. The rationale for providing drug interventions through the criminal justice system is to fast-track individuals whose criminal activity is directly related to problem drug use into treatment. Evidence on treatment outcomes suggests that the benefit-cost ratio for structured interventions makes such intervention cost-effective (ranging from 2.5:1 to 9.5:1 depending on methods used) making drug treatment in general an economically viable option in terms of costs and benefits.

- Evidence from Scotland suggests that the total social and economic cost of illicit drug use is just under £3.56 billion (around £61,000 per problem drug user). Estimated costs of crime are reduced significantly for individuals in treatment (from £12,713 for individuals with no intervention in place; to £1,536 for those in treatment for more than one year).

- Reductions in re-offending appear to be consistent features of evaluations of interventions (where this outcome is available) along with reductions in drug use for individuals who engage with the interventions. Where re-offending continues, evidence suggests that there is a reduction in the rate of re-offending from levels of re-offending prior to the intervention.

- There is evidence to indicate that retention in treatment and a consequent 'good' outcome is consistently predicted by the relationship between readiness for treatment and change, motivation and commitment, and the therapeutic relationship.

- There does not appear to be any significant difference in outcome between those who access treatment through the criminal justice system and those who access it voluntarily. While this highlights the viability of coerced treatment, it would equally suggest that diverting individuals into treatment may be as effective as intervening through the criminal justice system. In order to avoid 'net-widening', it is important that intensive interventions are used for 'high tariff' individuals and ensuring that community resources can be accessed outside the criminal justice system.

- Qualitative evidence, gathered from both professional respondents and service users, provides some positive elements from the Scottish evaluations of criminal justice interventions for drug users; however in terms of outcome and cost effectiveness, there is limited data from which conclusions of overall effectiveness can be drawn:

    - There is currently no evidence to indicate that mandatory drug testing of arrestees provides any benefits, although it does provide some indication of the incidence of drug use among those tested and can provide a basis for directing individuals to appropriate services.
    - Evaluations of arrest referral schemes are unable to provide evidence of benefits beyond the immediacy of the intervention, largely due to lack of evidence on longer-term outcomes including take-up of onward referrals.
    - However, the recent evaluation of the arrest referral intervention for persistent offenders in Glasgow does provide some evidence of reductions in reconviction rates and benefits in terms of cost when individuals engage with services.
    - Drug Treatment and Testing Orders (DTTOs) and Drug Courts are both associated with reductions in drug use and reoffending, with improved outcomes for those who complete Orders. Drug Courts appear to be slightly more successful in terms of reconviction rates than DTTOs.
    - Evidence on the effectiveness of lower tariff DTTOs (DTTO IIs) is inconclusive, however international literature on the use of intensive interventions mitigates against the use of intensive interventions for individuals who are low tariff offenders.
    - Combined residential and community-based interventions such as the 218 Centre and Turnaround have much to offer in promoting recovery, given the holistic nature of the intervention; however although cost data is available there is currently no corresponding data on rates of reoffending/reconviction with which to measure cost-effectiveness.
    - While prison may be an effective point of intervention for some problem drug users, evidence from Scotland is limited, with no reconviction analysis of prison-based drug related interventions currently available.
    - Levels of re-offending on release from prison appear to be directly related to the availability of aftercare provision.

- While international evidence indicates positive outcomes for therapeutic communities[1] and 12 step programmes[2] there is limited evidence for these interventions in terms of criminal justice outcomes. These interventions are successful when examined in relation to individual recovery journeys and could have much to offer in terms of reducing drug-related crime and promoting desistence.

- Despite the focus on criminal justice interventions for problem drug users, very little is known (internationally) about what works for which groups (see also UKDPC, 2008). It is difficult to identify 'what works for whom' given the limitations of the evidence available, and the predominance of white men referred to the majority of criminal justice interventions for drug users in Scotland.

    - Evidence is mixed as to the appropriateness of particular interventions for younger people; while they may be more amenable to change there is evidence to suggest that some young people may struggle to adhere to the requirements of Orders.
    - Black/ethnic groups are under-represented in drug treatment and in the criminal justice system in Scotland and their experiences are not highlighted in any existing Scottish evaluations.
    - Women appear to have difficulties in meeting the requirements of Drug Court and DTTOs, and indeed are more likely to be breached than men on DTTOs. While DTTO IIs have greater gender parity than DTTOs or Drug Court interventions, the low tariff nature of this disposal may have negative consequences for women who are drawn into a more intensive supervision requirement, with potentially serious consequences for non-compliance. Disposals with a distinctive gender responsive approach (i.e. the 218 Centre) appear particularly suited to women although follow-up evidence on reconviction rates is not currently available. In the short-term however, there is evidence of reduced drug use and offending along with other benefits such as improved health and stability.

[1] **Therapeutic community** is a term applied to a participative, group-based approach to long-term mental illness as well as drug and/or alcohol problems. The approach is usually residential with the clients and therapists living together. Therapeutic communities utilize a social psychological treatment approach where 'community' is 'method', designed to support recovery from problem drug/alcohol use in the individual and group, by addressing change in the whole person (see De Lyon, 2010).

[2] Originally proposed by Alcoholics Anonymous (AA) as a method of recovery from alcoholism, the Twelve Steps were first published in the book, *Alcoholics Anonymous* in 1939. Twelve step programmes have received particular attention from professionals advocating the importance of 'recovery' as a priority for drug treatment services.

1. INTRODUCTION

This review is based on a mapping exercise of interventions within the criminal justice system in Scotland aimed at responding directly to individuals with drug problems[3]. Although this review does not focus on alcohol, it acknowledges that alcohol is an often neglected component of drug use problems, and one which can manifest as an increased problem during treatment for problem drug use (Gossop et al, 2001; McIvor et al, 2006). Taking Scotland as the central focus, the mapping exercise will consider the evidence available and where possible and appropriate, will compare this to international experiences. Given the recent attention to 'recovery', this will be noted in terms of interventions and the implications for assessing 'effectiveness'[4].

For the purpose of this review, 'effectiveness' refers to outcomes: (i) reductions in offending and ii) reductions in drug use; and cost analysis. Definitions of 'effectiveness' and comparability of data across evaluations will be critically assessed. Available data on cost-effectiveness and the limitations of this will be noted wherever possible with unit costs of interventions provided where available – however significant caveats need to be considered when drawing comparisons in terms of costs[5]. Gaps in the available evidence will be highlighted.

This review will examine the interventions which exist at key points in the criminal justice process and will analyse the findings from evaluations of these interventions wherever possible. The key intervention points have been identified as:

- Detention and Arrest
- Sentence and Disposal
- Prison
- Through-care/After-care

While strategies can be put in place prior to court proceedings (i.e. low-level enforcement and policing practices) this review is concerned with the impact of 'treatment' delivered as part of a community or custodial intervention, and the findings from evaluations thereof. 'Treatment' can be taken to mean a number of diverse things. It is traditionally used to refer to clinical treatment (detoxification and substitute prescribing) but the increasing awareness of the 'recovery' agenda has brought attention to, and highlighted the benefits of, a range of interventions (e.g. therapeutic communities, residential rehabilitation, and (potentially) mutual aid organisations. The extent to which such interventions have been evaluated and the rigour/comparative potential for such evaluations varies considerably.

The review will consider which interventions, on the basis of the available evidence, appear to be most effective in reducing offending and drug use (thereby promoting

[3] This review will focus on the use of illicit drugs and/or the misuse of prescribed drugs. The review does not examine interventions related to the use or misuse of alcohol and is limited to interventions located within the criminal justice system.

[4] The review focuses on adult offenders (however see Matrix Research and Consultancy (2007) for an evaluation of drug intervention pilots for children and young people).

[5] There are particular gaps in relation to knowledge about cost-effectiveness and value for money.

and supporting recovery) amongst drug users in the criminal justice system. Interventions deemed less effective will be identified and the reasons for reduced efficacy considered. Where possible, findings on reduced drug use; completion of programmes and longer-term follow up will be examined. The review will highlight, where possible, evidence as it relates to effectiveness for particular groups (i.e. what works for whom).

The aim of this review, carried out between August and November 2010, was to map the relevant Scottish evidence in relation to interventions for offenders with drug problems in the criminal justice system. All types of evaluation studies were considered (including qualitative and case study evaluations) where an attempt had been made to measure effectiveness of the intervention. Material was collated from a range of sources: Scottish Addiction Studies (SAS) on-line library and literature held at the University of Stirling, database search including websites of the Scottish Government and the Home Office. In addition, relevant UK policy documents and academic literature which outlined the development and application of policy and practice in relation to interventions for offenders with drug problems in the criminal justice system was examined to provide context to the findings.

While there is scope to develop the collation of international evaluation reports further, it would appear that the majority of reports of Scottish evaluation studies (from 2000–2010) on national criminal justice interventions introduced in response to drug-related offending have been included in this review. Every attempt was made to identify and evaluate all relevant Scottish studies, given the limited time and resources available and the broad remit of this task, so it is possible that a small number of studies or reviews were overlooked. This likelihood was minimised by a process of cross-referencing across databases and relevant library websites. Contact was made with relevant organisations (e.g. Scottish Prison Service (SPS)) to ensure all relevant studies were included. Only English language studies and reviews were included.

The review is selective in that it is restricted to key Scottish evaluation reports and focuses on recent research. However, the wider context of the UK is considered throughout. It is not comprehensive in relation to drug types, covering only those which the criminal justice system currently and routinely encounters in response to problem drug use (and therefore tends to be directed at opiate misuse; the limitations of services for cocaine and crack users has been recognised).

2. BACKGROUND

Drug-related crime is an important policy issue for politicians, policy-makers and practitioners in the UK and internationally; and over the years, there have been significant innovative shifts to develop services for drug-using offenders. These services have the primary intention of linking individuals who persistently offend, as a direct result of their drug use, into treatment services[6]. Within the community, the most notable examples of this kind of service are: Arrest Referral Schemes; Probation Orders with conditions of drug/alcohol treatment; Drug Treatment and Testing Orders and Drug Courts; while in prison a range of interventions are available to individuals identified as having substance-related problems. Evidence highlighting the benefits of intervening to address problematic illicit drug use (a reduction in crime is associated with a reduction in drug use; Gossop et al, 2001) has resulted in investment in treatment interventions as a way of addressing drug-related crime, a feature that has become embedded in successive drug policies in Scotland and the UK more broadly.

Cost Analysis

Despite the challenges of measuring costs arising from crime; crime associated with drug use is significant in terms of costs to the criminal justice system as well as costs to the victims of crime. The cost of drug related crime in England and Wales is estimated to range from £2-3.5 billion in direct costs, with a further £7-12 billion in social costs when victims of crimes are considered (Godfrey et al, 2003). The economic evaluation of drug interventions is generally concerned with the success rate of interventions, distribution of their impacts over time and across populations, and their financial costs[7]. Even small differences in performance are likely to have a large impact on future benefits and cost savings. Unfortunately the evidence on treatment success (medium-long term) is limited with few studies following individual clients over any significant length of time.

The National Treatment Outcomes Research Study (NTORS) reported a cost-benefit ratio of 9.5:1 (Godfrey et al, 2004) based on cost and benefit estimates of drug treatment for a four year period (two years before treatment and two years following). More recently, the Drug Treatment Outcomes Research Study (DTORS) assessed the outcomes, costs and benefits of drug treatment in England (Davies et al, 2009). Despite the limitations of the study[8], it provided evidence that treatment was effective in reducing the costs of other health and social care services (over approximately a one year period). Structured drug treatment was estimated to provide net benefits to the individual in 80% of cases, with a benefit-cost ratio of around 2.5:1.[9] Davies et al (2009) concluded that the probability that structured drug treatment is cost-effective in around 80% of cases suggests gains from treatment by the majority of service users

[6] This has been a statement of intent within the prison services (Scottish Prison Service and HM Prison Service) since the mid 1980s.

[7] In Scotland, £94.3 million was allocated through Criminal Justice funding for drug treatment and support services for the period 2008-2011.

[8] Data was limited by missing observations and follow-up data, and self-report data was used to estimate service use, offending and health status. It is difficult to attribute changes in outcome to drug treatment specifically given the absence of a control group or other methods for clarifying this.

[9] This study differs from the NTORS study in terms of length of time, and in terms of costs and benefits covered and monetary values attached to these outcomes meaning that the NTORS and DTORS studies are not directly comparable.

are unlikely to be outweighed by losses incurred by the remaining 20% where treatment does not appear to be cost-effective.

Casey et al (2009) estimated the size of the market and cost of illicit drug use in Scotland in 2006 using available data sources. Their study estimated the total social and economic cost of illicit drug use in Scotland at just under £3.5 billion, around £61,000 per problem drug user. However, the lack of information in relation to Scottish crime costs meant that it was not possible to evaluate costs of crimes carried out by problem drug users in Scotland. Using figures based on estimated numbers of arrests, Casey et al (2009) estimated the associated criminal justice costs for problem drug users to be £7,397,111 (for the year 2006). The total criminal justice costs (in 2006) for problem drug users in Scotland were estimated to be £533,543,497[10]. Importantly, this study calculates average criminal justice costs per problem drug user in terms of treatment status. Total crime costs for problem drug users who are not in treatment were estimated to be £12,713. This compares to £6,524 for those in treatment for less than a year and £1,536 for those in treatment for more than a year. Despite the caveats in data accuracy, this does clearly indicate significantly reduced costs associated with treatment status with additional evidence that interventions which improve aspects of social functioning in general, are likely to include reductions in offending behaviour and therefore direct reductions in the social and economic costs of drug related crime (McSweeney et al, 2008a).

Policy Development

In the UK, and most notably in Scotland, there has been an increasing acknowledgement of the importance of 'recovery' in policy debate and development (Yates and Malloch, 2010). The United Kingdom Drug Policy Commission (UKDPC) emphasised the importance of 'recovery', which it set out to mean: *"voluntary sustained control over substance use which maximises health and wellbeing and participation in the rights, roles and responsibilities of society".* Recovery has taken an even more central role in the latest Scottish Drug Strategy (2008a) entitled the *Road to Recovery: A New Approach to Tackling Scotland's Drug Problem*. Here, recovery was defined as *"a process through which an individual is enabled to move on from their problem drug use towards a drug-free life and become an active and contributing member of society"* (Scottish Government, 2008a). The research basis of, and requirements for, the recovery agenda are examined by Best et al (2010).

However, while it has been widely accepted that recovery is an individual process where the individual in recovery is able to define what recovery means to them; that it is a perception rather than a model, there are clearly a range of challenges and rewards in pursuing recovery as a policy objective (Yates and Malloch, 2010). Moreover, attempting to measure the 'effectiveness' of specific interventions requires some consideration of the broader facets of recovery – concepts which go significantly beyond the more traditional measures of reoffending/reconviction and reductions in drug use (Best et al, 2010). This area is fraught with difficulty. As Lloyd and McKeganey (2010) note, there are very real problems of estimating the scale and nature of problem drug use; its long term impact on individuals, families and communities. Examining the impact of interventions in terms of their ability to promote and sustain recovery requires a much more holistic approach to identify changes in quality of life, wellbeing and opportunities (Best et al, 2010).

[10] This compares to total criminal justice costs for recreational drug users at £76,874,333.

In this respect, comprehensive interventions which address all areas of a participants life (i.e. therapeutic communities, 12 step programmes, mutual aid societies) provide positive outcomes for those who engage (Best et al. 2010). By reducing drug use they successfully reduce reoffending rates, for many participants. However, there is limited evidence currently available to illustrate the way such interventions interact with the criminal justice system; or their impact in relation to the Scottish criminal justice system in particular.

Criminal Justice Interventions

Bearing this in mind, a broad range of research, from both the criminal justice and addiction studies fields, has provided evidence for the effectiveness of drug treatment, including 'coerced' or court-mandated treatment (Hough, 1996; Gebelein, 2000; McSweeney et al, 2007; UNODC, 2010), illustrating that this is an important way of bringing people into treatment services who may not otherwise access them. Once that contact has been made, individual motivation to end or reduce substance use may be developed and the evidence indicates that effective drug dependence treatment as an alternative to criminal justice sanctions substantially increases recovery, including reductions in crime and criminal justice costs (McSweeney et al, 2007; Uchtenahgen et al, 2008). One of the important principles underpinning 'coerced' treatment is the attempt to enable drug-dependent individuals to cease from offending behaviour and to reduce or end their use of illicit drugs. The evidence available to date suggests that these objectives are plausible, although raising some thorny issues relating to the redirection of resources (potentially from voluntary, community based services through the criminal justice system; and the appropriateness of coercion as a mechanism for lasting individual change).

In 1996, Michael Hough reviewed the emerging literature relating to drug misuse and the criminal justice system. Although his review preceded the introduction of many of the drug treatment interventions currently operational within the criminal justice system in the UK[11], his findings were used to inform the subsequent development of interventions introduced from 1996 onwards. He concluded that the key elements of successful treatment, regardless of whether it was delivered within or outwith the criminal justice system involved:

- "*Getting misusers with serious drug problems into treatment quickly;*
- *Keeping them there for as long as possible, and for a minimum of three months;*
- *Providing incentives to keep misusers in treatment, and delivering treatment within a positive and supportive environment*". (Hough, 1996:2)

In relation to criminal justice interventions for drug users with serious drug problems, he concluded that:

- Legally coerced treatment was no less effective than treatment entered into 'voluntarily';
- The criminal justice system was well placed to coerce people into treatment and keep them there;
- Drug testing could provide a solution to problems of disclosure in identifying illegal drug use, and could help secure compliance with treatment conditions; however it should form an integral part of treatment, rather than being used only as a form of surveillance.

[11] His review drew largely on evidence from the USA.

While ending an individuals' drug use may have variable success rates, the reduction in offending behaviour appears to be a consistent feature of evaluations (McSweeney, 2010). Final reports from the Drug Treatment Outcomes Research Study (DTORS) also indicate that the criminal justice system is a valid route into drug treatment; and that drug treatment is cost-beneficial (Donmall et al., 2009). The Home Office DTOR Study (Donmall et al, 2009; Jones et al, 2009) reports on a longitudinal study of a broadly representative sample of adult 'treatment seekers' in England. The limitations of the methodology are outlined (Davies et al, 2009) and include the high rates of attrition over the period of the study, the use of self-report data to estimate service use, offending and health status, along with the absence of a control group who were not in receipt of treatment. Some of the treatment outcomes reported are also critiqued by McKeganey (2010).

However, given the importance of the 'recovery' agenda in Scotland, the broader context of developing accessible services linked into community resources is of key importance. Indeed, Best et al (2010) outline the need for further research on coerced treatment in a Scottish context given the limited knowledge that currently exists in this arena.

Responding to Drug Related Crime

Criminal justice interventions for drug users represent an attempt to link the divergent interventions of 'treatment' and 'punishment', providing a community-based disposal for high tariff (and more recently low-tariff) drug-dependent offenders. Treatment through the criminal justice system (as an alternative to sanctions) presents an opportunity to provide drug users and drug dependent individuals with assistance where there is an element of choice. Interestingly, as Hough pointed out in 1996, there does not appear to be any evidence of differences in outcomes between 'voluntary' and 'coerced' groups; a finding that has continued to be evidenced over time (McSweeney et al, 2006). While the importance of clear and effective communication can mitigate against the perception that treatment is involuntary, in some cases admittance to coerced/compulsory treatment can be perceived as voluntary by participants (i.e. Dekker et al, 2010) or relatively unproblematic when participants claim a desire to 'change' or to address their drug use (Yates et al. 2005). Gilman and Pearson (1991) note the importance of coercion in individuals' access to treatment:

> *"(I)t is about stacking the odds through the threat of penal sanctions so that the drug user is more likely to recognise that entering some form of treatment is a rational choice; forcing people to be free, in fact. It is an ambiguous morality at best, but nevertheless a serviceable one".* (Gilman and Pearson, 1991: 117)

Locating rehabilitative resources (i.e. drug treatment) within the criminal justice system has not been without criticism (Roberts, 2003) which has largely focused on the redirecting of resources from voluntary community drug treatment services to 'fast-track' offenders; and the potential for 'net-widening' as increasing numbers of individuals are drawn into the criminal justice system in order to access treatment[12]. Additionally, the imposition of treatment-based Orders for low-tariff individuals can be

[12] Also noted in Community Justice Services (2009) where respondents in Fife expressed concern for the perceived limited drug treatment available generally in the area, suggesting that it was necessary for drug users to escalate their level of offending behaviour in order to access drug treatment through the criminal justice system.

problematic where the conditions of these Orders are not met, potentially resulting in high-tariff disposals (notably custody) for offences which would not have merited this in the first instance but where individuals are subsequently penalised for non-compliance with these conditions. The increasing use of mandatory drug testing (MDT) alongside, or as a means of assessing compliance with, these Orders has been linked with the extension of testing (without equivalent forms of support/treatment) and critiqued as a potential violation of individual rights and waste of resources.

Drawing on a pan-European study[13], McSweeney et al (2007) found that at both national and international levels, court-mandated clients reported significant and sustained reductions in illicit drug use and offending as well as improvements in other areas of social functioning. However, those entering the same treatment services through non-criminal justice routes also reported similar reductions and improvements (Jones et al, 2009). As McSweeney et al (2007) indicate, the increasing use of the criminal justice system as a method of requiring individuals to undertake treatment interventions, has reduced the role of voluntarism and potentially self-efficacy, while at the same time encroaching upon proportionality by increasing the intrusiveness of punishment in the name of rehabilitation. Drawing low-risk offenders into stringently enforced disposals can itself result in increased numbers being imprisoned for non-compliance with order requirements; a particular issue for England where levels of discretion for enforcements have been identified as being significantly lower than in Scotland (e.g. Turnbull et al, 2000; Eley et al, 2002a).

Evidence from a range of studies has highlighted that treatment appears to be most effective for those with the highest levels of drug use and who were most criminally active prior to treatment. Those remaining in treatment also evidence higher reductions in crime and better outcomes than those who leave early[14] (Gossop, 2005) also evident in criminal justice interventions (McIvor, 2004; Community Justice Services, 2009). Overall, evidence illustrates that retention in treatment and a consequent good outcome is consistently predicted by the relationship between readiness for treatment and change, motivation and commitment, and the therapeutic relationship (see also Perry et al, 2008).

Overall there has been evidence of a generally positive view of the enhanced role of the criminal justice system in identifying drug users and directing them into treatment (e.g. UK Drug Policy Commission, 2008). The introduction of court-mandated treatment has been welcomed as a positive alternative to imprisonment, but with a number of issues that require close monitoring, notably the significance of moving away from overly punitive interventions (Roberts, 2003).

The introduction of interventions at different points in the criminal justice system reflects an attempt to respond to key 'hotspots' in the lives of individual drug users in order to widen opportunities for a fast-track into treatment. In England, this has been streamlined through the Criminal Justice Interventions Programme (CJIP) which forms a major part of the English and Welsh approach to reduce drug-related crime (Drug Intervention Programme). By bringing together a range of interventions, CJIP aims to provide a beginning-to-end support system for dealing with drug-misusing offenders

[13] Quasi-compulsory drug treatment (QCT) options for drug dependent offenders.

[14] Evidence from the USA's *Drug Abuse Treatment Outcome Study* indicates that longer stays in treatment are generally predictive of better outcomes although 'excessively long' programmes may be associated with poorer outcomes due to premature dropout (Christo, 2010).

from arrest through to release from prison. This has not yet been evaluated overall – although individual components have been evaluated with varying degrees of sophistication, based on local decision-making and utilisation of resources (see DIP Strategic Communications Team, 2008).

When all forms of interventions are taken into account, McSweeney et al (2008b) identified the most effective strategies for intervening with drug-using offenders as being therapeutic communities, interventions modelled on drug courts and substitute treatments such as methadone maintenance. The authors relied upon the National Treatment Outcome Research Study (NTORS) and Drug Outcome Research in Scotland (DORIS)[15] to identify interventions underpinning the substantial reductions in self-reported acquisitive crime among some of the cohorts of these studies. There appeared to be limited evidence for the effectiveness of drug testing and intensive forms of supervision.

[15] The DORIS study is a prospective follow-up study of a sample of drug users who initiated a new episode of drug treatment in Scotland in 2001. The sample size (1033 respondents) represented approximately one in twelve of all drug users in Scotland starting treatment in this year. Follow-up interviews took place at 8 months, 16 months, and 33 months.

3. METHODOLOGICAL CONTEXT

There are very real problems with identifying 'rigorous' evaluations in this area. Evaluations introduced to chart the development of a service can usefully provide process evaluations but generally these are conducted at too early a stage to be able to provide any outcome analysis. Conversely, evaluations introduced at a later date often struggle to identify the necessary data required for their proposed methodologies (i.e. incompatibility of data-bases across service providers and difficulties obtaining comparable aggregate data across sites as well as an absence of planned monitoring databases e.g. Eley et al, 2002a; Malloch et al, 2003; Loucks et al, 2006). This can mean that researchers often have to rethink their proposed methodologies when actually in the field. Furthermore, the use of random control samples in this area is fraught with ethical issues relating to the provision (or not) of treatment and brings together the law (justice) and medicine (health) making it difficult to impose the criteria for random control trials and to have them met. Key obstacles to identifying the effectiveness of interventions include the following:

Firstly, it is often difficult to identify a comparison group, without which it is a challenge to evidence the impact of the intervention with certainty (see Holloway et al, 2005; UK Drug Policy Commission, 2008; Donmall et al, 2009). While the use of randomised controlled trials is held up as the ideal for measuring the impact and effectiveness of interventions, this is generally impossible when an intervention identifies a target group which does not have a comparative population (it is often impossible to identify a comparator group who are not in receipt of any form of intervention). In such cases, to refuse individuals treatment on the basis that they make up a control group would be considered unethical and probably unworkable.

This is an internationally recognised problem (Perry et al, 2008). Dekker et al (2010) note the difficulties they encountered in attempting to undertake randomised controlled samples as part of their evaluation of the New South Wales Compulsory Drug Treatment Program (CDTP). Their attempt to undertake a randomised controlled trial of the CDTP (a five-stage post-sentencing program for males) proved impossible due to the small number of individuals eligible for the program; the sample was also too small to provide any opportunity to evaluate its effects on re-offending. Instead, the evaluation was limited to assessing the impact of the CDTP on the health and wellbeing of participants, measuring changes in perceived coercion, affective reactions, treatment readiness and therapeutic alliance, gauging participant satisfaction with various aspects of the program, and monitoring participants' drug use while on the programme.

Secondly, where numbers of participants accessing an intervention are very small it becomes impossible to provide a rigorous assessment of effectiveness in reducing re-offending or long-term drug use. Thirdly, it can be difficult to identify what feature of an intervention supported change – given that individuals can change for a variety of reasons (i.e. by the very fact that they are drawn into the criminal justice system; other life events). Fourthly, as Holloway et al. (2005) concluded from their systematic review of programmes, research in this area is varied; different methods are used to measure different outcomes, across different periods of time. This creates very real problems in measuring the impact of an intervention in comparison to others (they may not be operational in the same geographical context or during the same period of time) and

poses a very real challenge when attempting to compare costs (which are not even calculated in the same way).

To summarise, evidence on the effectiveness of interventions in this field is complicated by a range of methodological problems (around sample size, availability of comparison groups, measures of 'success') which needs to be acknowledged. This means that discussions on the effectiveness of interventions do not only compare different interventions at different stages of the criminal justice process (i.e. community disposals with interventions in prison; outcomes for low-tariff as opposed to high-tariff offenders), but are also likely to involve comparing different methodological techniques and therefore different outcome measures. These issues are highlighted in this review where appropriate and reflect some of the difficulties identified in systematic reviews of interventions elsewhere (e.g. Holloway et al, 2005; Roberts et al, 2007; UK Drug Policy Commission, 2008; Perry et al, 2008).

Major gaps in the evidence base for drug interventions within the criminal justice system are internationally acknowledged (across the UK, USA, Australia and elsewhere). Wundersitz (2007) notes that outcome-based assessments are not available for all programme evaluations, while a range of methodological difficulties affect the ability of evaluations undertaken to determine not only levels of effectiveness, but whether the interventions actually work. She also notes that many evaluations outlined in her review of Australian interventions took place at an early stage in the operation of the programme under study, with small samples and short follow-up periods making information on drug use and offending impact, particularly after programme completion, difficult to obtain. Few studies have access to a randomised control group against which changes in rates of reoffending can be measured. It is difficult to evaluate outcomes generally and particularly when attempting to assess reductions in offending and drug use given the illegal nature of both (levels of these ongoing behaviours may not be recorded or disclosed).

Difficulties in obtaining outcome results has led researchers to turn their attention to other areas (obtained by qualitative data) such as health, perceptions of staff and clients[16] (e.g. Loucks et al, 2006; Dekker, 2010; McCoard et al, 2010) as a way of contextualising and supplementing output data. This has led to recognition of the importance of identifying the broader changes that may occur as a result of interventions for individuals which go beyond changes in rates of offending and/or drug use, but which may ultimately have a long-term impact on these behaviours.

Qualitative data consistently indicates that participants value the interventions aimed at supporting change and addressing drug use and while this is valuable in order to identify the operation of services and nature of relationships between participants and workers, this has to be balanced against other data i.e. positive drug tests. This triangulation of data is useful; statistical data without a theoretical and/or conceptual context is problematic in light of suggestions that relapse may itself be an integral part of the process of giving up drug use (Prochaska and DiClemente, 1986). Where reductions in drug use rather than elimination of drug use are measured then this can significantly improve the outcome of interventions. However, in Scotland, drug testing (i.e. as part of DTTOs and Drug Court disposals) and other interventions can

[16] The emphasis on the perceptions of service users has been a frequent feature of evaluations conducted on drug interventions in Scotland.

only measure the presence of an illicit drug and do not provide sufficient data to identify reductions.

Research tends to focus on what is measurable, (hence pharmacological) and clinical interventions may be more amenable to traditional study designs, potentially rendering other interventions as 'uncertain'. This is problematic when the more complex interventions such as psychosocial and therapeutic interventions are excluded from evaluation due to the challenges of 'rigorous' examination. They may not be less effective (in outcomes and/or cost measures) but may simply be more difficult to evidence (see Perry et al, 2008; Best et al, 2010).

To summarise, as Holloway et al (2005:viii) point out *"it is clear (...) that research in this area is varied and largely uncoordinated, with different research teams exploring different outcomes, among differing populations, over different time periods using contrasting methods. Drawing conclusions from such variable studies is particularly difficult".*

4. EVIDENCE from INTERVENTIONS

Scotland has introduced a number of innovative interventions aimed at drug users in the criminal justice system, often in advance of similar developments across the rest of the UK and occasionally with a slightly different emphasis in practice. This section will examine the assessed effectiveness and identified 'value for money' of the interventions evaluated to date, using the available information[17]. The review focuses on specific interventions introduced under the auspices of the criminal justice system[18]. Individuals with identified drug problems can also be diverted from prosecution to social work and other relevant services (Barry and McIvor, 2000; Bradford and McQueen, 2011). During 2008-09, 17 cases diverted from prosecution were referred to drug treatment/education (a fall of 60% from the previous period) (Scottish Government, 2010).

Drug Testing

Drug testing has also been introduced throughout the criminal justice system – initially as a mechanism for assessing levels of drug use among arrestees (Bennett, 1995; Bennett, 2000; Mallender et al, 2002) and subsequently for identifying compliance with treatment interventions (Holloway et al, 2005; Home Office, 2006; Mair and Millings, 2010). Mandatory assessment as an isolated avenue into treatment appears to be less likely to retain drug users with the most prolific criminal records for the 12 week treatment period considered necessary for therapeutic progress. On-arrest testing appears to capture more relatively low-level offenders suggesting that individuals, who were unlikely to have criminal charges imposed, were being required to undergo testing and assessment (Matrix Research and Consultancy and NACRO, 2004).

Mandatory Drug Testing

The Mandatory Drug Testing of Arrestees (MDTA) was implemented in Scotland in three pilot areas (one police station in Aberdeen, Edinburgh and Glasgow) to encourage problem drug users who come into contact with the criminal justice system to engage with treatment services. This required those arrested for defined 'trigger' offences to undergo an assessment on the basis of which they could be referred, voluntarily, to drug treatment providers. The evaluation of this service (Skellington Orr et al, 2009) illustrated that the number of arrestees assisted into drug treatment was much lower than anticipated with the level of grant spend per individual attending assessment estimated at £2,502 (Aberdeen), £3,275 (Edinburgh) and £4,816 (Glasgow). For each individual entering treatment, the level of grant spend rose to £6,655 (Glasgow), £9,821 (Aberdeen) and £17,586 (Edinburgh). Although positive views of the scheme were identified on the part of workers, the evaluation was not able to provide any significant outcomes data (on drug use, offending or social impact of the scheme) rendering it impossible to establish the impact of this service.

The difficulty of identifying follow-up results which track individuals into treatment and can evidence longer-term results renders the knowledge base for such early interventions somewhat tentative. Similarly, while unable to demonstrate impacts on

[17] Collated data is set out in Annex One.

[18] Consideration was given to providing an overview of evidence relating to substitute prescribing; however given the remit of the review and the time available it was not feasible to adequately cover this issue.

retention, offending or imprisonment, a pilot of restrictions on bail in three areas in England (an order which made attending an assessment and if indicated, participating in treatment as a condition of non-custodial bail) showed that a relatively small but possibly worthwhile number of defendants had entered treatment due to the bail order who would not otherwise have done so (Hucklesby et al, 2007). This is the challenge for such interventions: they may provide an opportunity to access services for a small number of motivated individuals, but it is not clear if these individuals would have taken up the offer of services had they accessed them otherwise. It also raises the challenge of making resources available more immediately through the criminal justice system, alongside the broader issue of cost-effectiveness[19].

Arrest Referral

Arrest referral describes the process of engaging an arrestee by way of a brief intervention in a police custody suite and facilitating their referral into treatment or some other diversionary channel. In the UK, arrest referral schemes were introduced as a means of 'fast-tracking' arrestees with drug and alcohol problems into appropriate treatment services, with schemes being established across England and Wales in the 1990s and slightly later in Scotland (Birch et al, 2006). Similar to initiatives in other jurisdictions across Europe and elsewhere, they aim to identify arrestees for whom offending may be related to substance misuse and to refer them to appropriate treatment services and support. Arrest Referral schemes work on the basis that arrest and detention represent a critical point in the life of the individual drug user, where the opportunity for constructive intervention may arise.

In England, where schemes were well co-ordinated and proactive, Turnbull et al, (1996) considered that they had the potential to identify and refer significant numbers of individuals to services[20]. Similarly, Edmunds et al, (1998) indicated that while many questions about the efficacy of arrest referral schemes remained inconclusive, they were of the view that these schemes could be successful in linking problem users into support services earlier than they may be otherwise; thus enabling them to start to address their drug use by accessing treatment. On this basis, Edmunds et al (1998) considered such schemes to be cost effective by the very fact that given the extent of drug related offending amongst arrest referral scheme participants, only a small reduction in drug use and related offending was required to ensure that schemes paid for themselves. More recent findings (Sondhi et al, 2002) suggest that the Home Office arrest referral initiative results in a reduction in re-arrest rates following contact with an arrest referral worker with self-reported reductions in offending and drug use, along with significant improvements in health which resulted from

[19] Scottish Government (2008b) provides the following estimates for court disposals for 2005-6 as:

- Six months in prison: £15,964
- Average cost of a probation order (standard): £1,283
- Average cost of a DTTO: £11,727

Provisional figures for 2008-9 are estimated at:

- 6 months average cost per prisoner place: £15,553 (excludes capital charges and exceptional payments, based on design capacity)
- Standard probation order: £1,334 (excluding participants in intensive projects).
- DTTO: £11,807.
-

[20] Indeed the project evaluated by Turnbull et al (1996) *Get it While You Can*, was referred to by the research team as a 'supported placement service' to distinguish it from arrest referral schemes which generally had low take-up rates.

engagement and retention with treatment. Preliminary economic analysis indicated that the ratio of economic and social benefits to cost resulting from the scheme were around 7:1.

Generally, take up rates for arrest referral schemes are low (although Hough (1996) considered their potential to be 'promising') and the voluntary nature of such initiatives could result in high drop out rates (for continued involvement with services) for frequent offenders (Scottish Government Community Justice Services, 2009).

The majority of arrestees interviewed by schemes are typically male, making up the majority of arrestees overall. However, the proportion of women offered arrest referral appears variable, despite evidence that women assessed for arrest referral may be at greater risk of future criminal justice sanctions as a result of drug problems than men and less likely to have accessed treatment previously (Best et al., 2003). In Scotland, for example, the proportion of women among those who accepted the offer of referral varied across schemes, from 16 to 40 per cent (Birch et al., 2006) while some groups who might benefit from arrest referral (such as crack-using sex workers) are rarely referred to services elsewhere in the UK (Sondhi et al., 2002).

The evaluation of the Scottish Arrest Referral (AR) Pilot Schemes (Birch et al, 2006) examined the operation of the (then) Scottish Executive funded schemes[21] introduced in six areas of Scotland (Edinburgh and Midlothian; Glasgow; Tayside; Renfrewshire, East Renfrewshire and Inverclyde; Dumfries and Galloway, Lanarkshire). The pilot schemes were at different stages of operation at the time of the evaluation making it difficult to draw any comparative analysis. Overall arrestees accepting referral to AR were predominantly male, white and aged over 40. The pilots had difficulty in establishing robust systems for data collection on arrestee contact with, and retention in, services and so it was difficult to identify any longer-term impact of this intervention. However small scale tracking exercises indicated that a majority of arrestees referred attended at least one appointment. Across the schemes, the cost of AR varied from around £75 per offer of AR to £340 per achieved initial AR interview. While there appeared to be some indication that the pilots were successfully linking arrestees into services there was no opportunity for the evaluation team to examine longer term consequences. While intending to obtain data on offending patterns pre and post referral to AR, this proved impossible within the short time-scale of the evaluation. Coupled with inconsistent implementation of the national monitoring framework, the possibility of collating data on onward referrals, contact with and retention in services was not possible to ascertain.

Persistent Offenders Project (POP)

Following on from the Arrest Referral project in Glasgow, a further need was identified for persistent offenders who did not appear to be linked into treatment and care services and who were regularly arrested, imprisoned for short sentences and returned to the community. POP was established in Glasgow in 2006 and was evaluated in 2008 (Smith, 2008). The evaluation highlighted that the majority of participants who engaged with POP were male (56 males to 17 females) with a mean age of 31.5 years. Due to difficulties establishing the service and delays in commencement, the number of participants was lower than anticipated. For those who engaged however, there was an aggregated overall drop of 28.5% in convictions

[21] Funding was made available for a series of pilot projects in 2003.

since the point of engaging with POP and a reduction in time spent in prison from 30.2 days to 7.4 days[22]. A follow-up analysis of costs and benefits (Scottish Government, 2010b, *unpublished*) indicates that each £1 spend on this service leads to benefits of up to £14 in the form of reduced economic and social costs of crime.

Sentence and Disposal

At the point of disposal, a range of options are in place across Scotland providing different potential interventions to sentencers faced with an individual with drug-related problems and/or patterns of offending. This can include traditional disposals with conditions attached, for example Structured Deferred Sentences (Macdivitt, 2008) with a condition that support will be obtained for identified addiction issues, Probation Orders with a condition of drug treatment; or specialist disposals such as Drug Treatment and Testing Orders (DTTOs) or referral to Drug Court.

Probation Orders with Conditions of Drug Treatment

While there have been evaluations of the use of Probation Orders in Scotland (McIvor and Barry, 2000), there has not been any specific examination of the outcomes of Probation Orders with drug treatment conditions attached. Around 14% of Probation Orders (2008-09) included conditions of alcohol treatment/education or drug treatment/education (Scottish Government, 2010). Holloway et al. (2005) outlined evidence that probation and parole supervision are effective interventions. However their analysis of evaluations of probation and parole supervision did not provide evidence for links between the intensity of supervision and outcomes. A study conducted by Hearnden and Harocopos (1999) on problem drug use and probation in London indicated that problem drug users subject to probation orders with a condition of treatment showed larger reductions in the amount spent weekly on drugs than individuals on orders without extra requirements (although those on orders with conditions tended to be heavier users).

The Criminal Justice and Licensing (Scotland) Act includes provisions to introduce a new Community Payback Order which will replace the existing community penalties of probation, community service orders, and supervised attendance orders. It will also reproduce elements of community reparation orders which were previously piloted in a number of areas. The Orders will enable courts to impose one or more of a range of requirements including unpaid work, supervision, a requirement to address offending behaviour, or alcohol or drug interventions.

Drug Treatment and Testing Orders

DTTOs were piloted in England in 1998 in three areas – Croydon, Gloucestershire and Liverpool (Turnbull et al, 2000). They were introduced in Scotland in 1999 (Eley et al, 2000a) and combined access to drug treatment, regular drug testing, case management and judicial review of progress; and were aimed at offenders with an established pattern of drug-related crime who were at risk of imprisonment. National evaluations of DTTOs have shown that they are associated with reductions in drug use and drug-related offending (Eley et al., 2002a; Turnbull et al, 2000; Hough et al., 2003; McIvor, 2004).

[22] Costs of this intervention were not provided as part of the evaluation.

The initial evaluation of the DTTO[23] pilots in England was fraught with difficulties including inconsistencies across schemes and the way they operated; and limited data on outcomes (Turnbull et al, 2000). Findings were limited to data from participants actively retained on orders; although initial results suggested that those who were retained on the programme appeared to have experienced reductions in drug use and offending, although given the small numbers at that stage this could not be stated conclusively.

Overall, the results for the English pilots were not completely positive (Turnbull et al, 2000; National Audit Office, 2004). The challenge for the ongoing measurement of success/effectiveness of DTTOs following roll-out was highlighted by the National Audit Office (2004) who recommended the routine monitoring and review of information on outcomes (particularly level of abstinence achieved or reduced drug use) at the time of termination of an Order; and recommended that the Home Office should routinely monitor and review reconviction rates. The National Audit Office also noted that after 12 months on DTTOs, 70% of participants tested positive for opiates. Differences in completion rates across areas varied considerably and as with the initial evaluation (Turnbull et al, 2000) could be related to a range of issues such as effectiveness of local programmes, but also local practice in selection of participants, local enforcement practice and length of Orders made locally[24].

DTTOs were piloted in Scotland in 1999 in Glasgow and 2000 in Fife[25]. The evaluation of the Scotland pilots (Eley et al, 2002a) identified the typical DTTO participant as a male heroin drug user in their late twenties with an extensive criminal record and a long criminal history of property crime related to substance use (those with less stability in their lives and particularly young offenders, were considered less likely to complete a DTTO). This was similar to the characteristics of DTTO participants in England. Orders were made as a stand-alone option rather than alongside a probation order as was usually the case in the English DTTOs. Scotland's national guidelines allowed for the discretion of the court in revoking orders and emphasised the importance of keeping the participant in treatment leading to much better completion rates than other areas of the UK (e.g. Best et al, 2003). The unit cost of an average length DTTO in Scotland at the time of the evaluation was estimated to be £9,129 per year compared to the average cost of a six-month prison sentence estimated to be £7,029 (in 1999/00).

A follow up review of the DTTO pilots undertaken in 2004 (McIvor, 2004) found that almost half of those who completed their orders (48%) had no further convictions within two years. Those who completed their orders had lower reconviction rates and lower frequency of reconviction than those whose orders were revoked. However, 41% of DTTO participants had been reconvicted within 12 months with 66% reconvicted within 24 months of the orders being made, although frequency of reconviction was lower in the two-year period after being placed on a DTTO than in the two years before. McIvor (2004) concludes that DTTO participants who complete their orders are less likely to be reconvicted and are reconvicted less often than in the period prior to the order being imposed.

[23] Compared to four additional projects which used Probation orders with an additional requirement for treatment of drug or alcohol dependency.
[24] In England and Wales, the DTTO was replaced in 2005 by the community order with a drug treatment requirement (DTR).
[25] Under the provisions of the Crime and Disorder Act 1998.

Given the frequent link between their offending and drug use, DTTOs were thought by policy makers to hold particular promise for female offenders. Women made up 18 per cent of those given DTTOs in Scotland in 2006/7 and tended to be slightly younger than men (with half being under 26 years of age compared with around one third of men). However, women have also been found to breach DTTOs at a higher rate than men, with 41 per cent of women and 33 per cent of men given DTTOs in Scotland having their orders revoked as a result of breach in 2008/9 (Scottish Government, 2010). The reasons for the higher breach rate among women are unclear but may include responsibilities for dependent children and the influence of drug-using partners (Jameson et al, 1999; Malloch and McIvor, 2011). The absence of specific treatment services for women may also have resulted in lower levels of retention. In the longer term, sustained success is likely to require attention to women's social inclusion and the availability of appropriate resources and supports.

DTTOs are now available to the High Court and all Sheriff Courts in Scotland. A total of 752 DTTOs were made in 2008-09, a 25% increase since 2007-08. Males accounted for 77% of DTTOs. There were 218 breach applications made to Courts in 2008-09 in respect of DTTOs, with males accounting for 70% of these applications. Around 37% of breach applications resulted in the original order being revoked and a custodial sentence imposed (Scottish Government, 2010).

DTTO IIs

DTTO IIs were piloted in the Lothian and Border Community Justice Authority Area in Scotland in June 2008. Extending the existing DTTOs, they were intended to make DTTOs available to lower tariff offenders earlier in their criminal careers. The initial evaluation of this initiative (McCoard et al, 2010) examines data from 59 orders made from June 2008-November 2009 (during which time two referrals were refused by the client and 10 orders were either breached, revoked or breached and then revoked). Only eight clients completed their orders during this period so the data available to provide any indication of the effectiveness of the pilot is limited. Most Orders imposed were for the duration of 12 months. The average annual cost per client was estimated to be £8,396 with an average start up cost estimated to be £2, 601 (with an estimated annual roll out cost of around £1,847,000 with additional start up costs of £447,000 outside the pilot areas). While the process evaluation does examine cost data, it does not provide an indication of the costs for alternative disposals (e.g. probation with conditions) and the key comparator is with the DTTO, not entirely comparable given the target client group.

Initial indications suggest that during participation in the DTTO II, drug consumption and re-offending rates reduced for individual participants, with relatively high completion rates despite low numbers. Overall those taking part in the scheme indicated they had experienced some positive changes in their health and living arrangements and had made moves towards improving employment and/or education status. However given the characteristics of these participants (low-tariff offenders) it is not possible to conclusively attribute these developments to the DTTO II pilot. They may have arisen due to the participants contact with the criminal justice system itself. While described as a 'female friendly disposal' by McCoard et al (2010) there is no evidence of what alternative disposals were imposed for individuals with similar characteristics; or variations in the impact of DTTO IIs with other orders (i.e. there is no comparison group). Importantly, there is no indication of what the consequences for breach and/or non-compliance with these orders were for participants. Given that this initial report provides findings from a process evaluation, the limitations of this data are to be expected.

Interestingly this order appears to have been implemented on a proportionately high number of women (49% female and 51% male) with an average age of client at 27.4 years (29.6 for men, 25.1 for women). However, as evidence from elsewhere shows, women are at risk of up-tariffing as a way of accessing treatment at a number of stages in the criminal justice system and some could possibly benefit from support that is not court-mandated (i.e. benefits of structured deferred sentences in Glasgow). Furthermore, if non-compliance is dealt with by custody or a direct alternative to custody, this would further suggest women are being up-tariffed in order to obtain treatment; and subsequently put at risk of further imprisonment.

Drug Courts

Based on initiatives which have been widely implemented in the USA, Drug Courts aimed to reduce crime by addressing drug-related offending of adults who have committed serious and/or frequent offences. They were introduced in Scotland with an expectation that the effectiveness of sentences such as DTTOs would be improved by additional treatment resources and intensified and specialist judicial supervision which aimed to be 'therapeutic' rather than 'punitive' (McIvor, 2009).

Following the introduction of DTTOs in Scotland and consideration of international developments in Drug Courts (Walker, 2001) pilot Drug Courts were introduced, located in Glasgow and Fife. Pilot Drug Courts were introduced to Glasgow Sheriff Court in November 2001 and Fife (sitting in Dunfermline and Kirkcaldy Sheriff Courts) in August 2002, with the aim of examining the viability of Drug Courts in Scotland. The pilots aimed to reduce drug use and drug-related offending through access to treatment and other services, alongside ongoing supervision and judicial oversight of Orders. The Drug Courts (granted an extension for a further three years with a commitment to review impact and effectiveness[26]) were aimed at individuals aged 21 years or older, where there was an identified relationship between serious drug misuse and offending. This intervention was aimed at high-tariff offenders. All Orders made by the Drug Courts were subject to urinalysis and regular (at least monthly) review by the Drug Court Sheriffs. Dedicated staff (including Sheriff Clerks, court officers and in Glasgow, a Procurator Fiscal and Co-ordinator, were in place. A Supervision and Treatment Team was established in both Drug Courts to provide assessment, supervision, treatment, testing and court reports.

Interim evaluations were produced for each Drug Court following the first six months of operation focusing largely on the operational aspects of the courts and identifying initial strengths and challenges as the courts were implemented (Eley et al, 2000b; Malloch et al, 2003). An overall evaluation of the pilot Drug Courts was published in 2006 (McIvor et al, 2006) highlighting the benefits and challenges for this intervention at that time. The evaluation examined a range of issues in the initial operation of the pilots (such as substitute prescribing, multi-professional work and the review process) as implemented in both Courts. Initial implementation was generally positive and the problem-solving dialogue between Sheriffs and offenders was considered to be a significant element in motivating individuals, while pre-court reviews were seen as crucial in establishing and monitoring achievable goals for clients.

[26] A commitment to review the impact and effectiveness of the Drug Courts was made in the Scottish Government Drugs Strategy published in May 2008.

Importantly, the evaluation also indicated rates of reconviction. Fifty percent of Drug Court clients were reconvicted within one year, with 71% being reconvicted within two years (similar rates for men and women). Reconviction rates in the first year of the Drug Courts were similar to the first year of operation of DTTOs. Clients who completed their Orders were less likely to be reconvicted within this two year period. Forty-seven percent of clients in Glasgow and 30% of clients in Fife completed their Orders. Over 80% of Drug Court clients were male with an average age of 26 years. Nearly all were unemployed or not seeking work and most had an extensive list of previous convictions and custodial sentences.

Professionals and clients were optimistic that the Drug Court was effective in reducing drug use and involvement in drug-related crime. Many clients also indicated that Drug Court Orders had brought about other improvements in their lives (e.g. health) (McIvor et al, 2006) and in both Courts there was a steady decrease in the proportions of clients testing positive for opiates and benzodiazepines over the course of an Order.

The average cost of a Drug Court Order was estimated to be £18,486. The average cost of a non Drug Court DTTO was £14,085. It was acknowledged that the higher cost of a Drug Court Order may have been due to the early stage of operation of the Drug Courts. By comparison, average unit costs of completed Drug Court Orders (2007-9) were reported to cost £46,442 per Order in Glasgow and £48,737 per Order in Fife. This compares to an average £35,897 per DTTO made by other Courts (2007-8) (Scottish Government Community Justice Services, 2009).

A subsequent review of the Glasgow and Fife Drug Courts was produced in 2009 (Scottish Government Community Justice Services, 2009) to evaluate the impact and effectiveness of the Drug Courts. While less extensive in scope than the 2006 evaluation, this later review focused on an update of key statistics in relation to throughput and outcomes and strategic meetings with key stakeholders. The 2009 review showed that despite the increased costs of the Drug Courts, there did not appear to be any clear reduction in crime as a result of Drug Court interventions. A generally positive view of the Courts was highlighted indicating the resolution of some initial implementation problems identified in the earlier evaluation (McIvor et al, 2006). The in-depth assessment, intensive treatment by a specialist multi-disciplinary team, continuity of supervision by the sentencing judge and improved efficiency in fast-tracking all outstanding offences, warrants and complaints was viewed as ensuring the Drug Courts had advantages over other interventions in the eyes of professionals.

Between 2005-2008, an average of 60% of those assessed suitable received a Drug Court Order (of which 75% were Drug Court Orders). Forty seven percent of Drug Court Orders were completed successfully[27] (without being revoked or breached due to non-compliance), this compares to 35% of all DTTOs across Scotland (and includes DTTOs made in the Drug Courts). In terms of recidivism, 70% of Drug Court clients had been reconvicted within one year and 82% within two years

[27] However there were distinctions across Glasgow and Fife Drug Courts, with Glasgow averaging a completion rate of 53% (between 2004 and 2008) while Fife averaged a completion rate of 38% (between 2005-2008) (Scottish Government Community Justice Services, 2009:7).

(compared to 72% at one year and 82% at two years for individuals given DTTO's across Scotland). Those who had successfully completed their Orders were less likely to be reconvicted (62% within one year compared to 78% of those whose Orders were breached or revoked) with these figures rising to 74% and 89% by two years. The 2009 review also acknowledged that the current evidence on outcomes of Drug Court Orders was inconclusive due to the small sample size, although analysis suggested that reconviction rates and frequency of reconviction among Drug Court cases was very similar to those among individuals given DTTOs under Summary proceedings.

There does not appear to be any evidence to suggest that orders imposed by Drug Courts were more effective in reducing the likelihood of reconviction than orders imposed in other courts, with the proportion of individuals reconvicted and frequency of reconviction varying little between Drug Courts and other courts. Qualitatively however, there was considerable support for Drug Courts among professional staff and stakeholders, who generally acknowledged the challenging nature of addressing drug-related crime and the entrenched difficulties facing many serious and/or persistent offenders with drug problems. The pre-review meeting was considered by key personnel to be the main strength of the Drug Court, providing a forum for multi-agency collaboration in the management of Orders. Consistency in sentencer was also viewed as a crucial benefit of the Drug Court.

International comparisons

Pilot Drug Courts (Dedicated Drug Courts – DDCs) were introduced in England and Wales in 2005 in West London and Leeds magistrates' courts. An evaluation of the pilot DDCs was carried out in 2008 by Matrix Knowledge Group. This evaluation focused on process and was not able to provide outcome measures. One notable difference from the Scottish Drug Courts was that potential Drug Court participants in the English pilots were remanded in custody while assessments were carried out; in Scotland, assessments were carried out in the community in order to attempt to obtain some indication of potential ability to comply with Drug Court Orders. Although outcomes are not currently available for the English pilots, evidence suggests that the participants of the DDCs shared similar characteristics with the Scottish pilots with regard to age, sex, criminal history and type of drug use (McIvor, 2010).

Internationally, Drug Courts appear to have reduced arrest rates for those on Orders but when randomised trials are considered, the effect appears to be weaker and not statistically significant. Evidence does suggest however, that US Drug Courts with clear cut sanctions for non-compliance appear to be more effective than Drug Courts where this process is less clear. Gill McIvor (McIvor, 2010) has examined the emerging findings relating to international literature on Drug Courts, with a particular emphasis upon operational barriers and concerns as well as considering the evidence in relation to the impact of drug courts upon drug use and drug-related crime. From the available evidence, it would seem that features shared internationally include lower completion rates when Drug Courts target more serious offenders; similarly, when criteria for completion are considered 'onerous' there are higher levels of programme failure; with the potential that increasing numbers of 'unsuccessful' participants end up in prison for a failure to comply rather than for their initial offence (McIvor, 2010).

Although a robust international comparison of Drug Courts is not yet possible there is evidence to suggest that they can contribute to reductions in drug use and drug-related offending alongside improved health and well-being (McIvor, 2010). Meta-analyses

suggest that Drug Courts are associated with reductions in recidivism (by 14% compared with offenders in control or comparison groups according to Latimer et al (2006)), with recidivism rates for completers generally lower than for non-completers as highlighted by McIvor (in Scottish Government Community Justice Services, 2009). However, it would also appear to be the case that higher tariff offender groups showed higher re-arrest rates, a factor which may vary across courts. Similarly, a shared feature of Drug Courts is their comparatively high costs due to resource intensity, but when compared to custodial sentences or continued drug-related offending the distinction in costs may be less weighty. Estimates from five meta-analyses have concluded that Drug Courts significantly reduce crime by as much as 35% compared to imprisonment. In addition, Drug Courts are estimated to produce $2.21-3.36 in avoided criminal justice benefits for every $1 spent on them, with up to $12.00 (per $1.00 invested) saved by the community in relation to other costs (such as accident and emergency facilities, other medical care, foster care and victimisation costs) (UNDOC, 2010: 9).

Turnaround

An innovative intervention in Scotland for young men (aged 16-30 years) has been funded by the Scottish Government since 2008 aimed at providing an alternative to custody for young men who have failed, or are failing in other community-based alternatives, or who have had multiple short-term prison sentences or remands, and who are considered vulnerable due to issues including substance use. The service has four community bases and a residential unit and is led by Turning Point Scotland. A recent evaluation of this intervention (Frondigoun et al, 2010) provided an examination of the development and perception of the service by frontline staff and service users. At the point of evaluation, a total of 1,172 individuals had been referred to the service, and 44 to the residential unit. Qualitative data provided a positive overview of the service, with its emphasis on recovery, and respondents reported improvements in many areas of their life. This was reflected in outcome assessments conducted by Turning Point. Time-limited funding was clearly an issue for the service (funded for three years) and the evaluation outlined a number of recommendations for future consideration. It was not possible to collect reconviction or re-arrest data for participants. However, the service was viewed as cost-effective (providing the intervention impacted positively on offending and addiction behaviours of clients), with the typical cost per client of a six month period of engagement at £2,788; and a cost of £11,673 per client for a six week period in the residential unit, or £13,827 per client for residential and community support.

Prison and beyond

Prison has been acknowledged as an appropriate point for intervening to reduce problem substance use, especially given the high prevalence of drug use among prisoners. It is estimated that around 70% of prisoners have taken illegal drugs in the year before their prison sentence, with up to 50% being categorized as problem users (Ramsay, 2003). This prevalence is believed to be higher among female prisoners. Ramsay (2003) concludes from his review of seven research studies on drug use and treatment in prison, that good quality treatment can be effective; particularly when it is of adequate length, meets individual needs and importantly, is followed by aftercare both in prison and following release. The potential risk of suicide on entry to custody, and accidental overdose and death on release has made this an important area for service provision. However, imprisonment can also exacerbate the lives of drug users and drug dependent individuals, increasing stigmatisation, increasing social exclusion and worsening health conditions (UNODC, 2010). Prison overcrowding and the

availability of illicit drugs within prisons present a continual challenge to the introduction and operation of drug treatment initiatives within the prison setting; a challenge experienced both nationally and internationally (Newcombe, 2003; MacDonald, 2004). In Scottish prisons, almost a quarter of remand prisoners (24%) reported that they had used drugs in the last month while in prison (SPS, 2009).

The introduction of interventions which have aimed to identify the needs of prisoners in prison and on release have met with various challenges, including levels of take-up, co-ordination of services and ongoing engagement in the community (e.g. McRae et al, 2006). In order for strategies to be effective, they need to extend across prison and community provision to ensure fluidity of access on entry and release from prison. The importance of transition between prison and community continues to present an ongoing challenge for service providers with continued fragmentation of provision[28]. In addition, there is a lack of agreement on outcomes across services, the evidence base for some interventions in relation to outcomes is limited and performance data for the measurement of progress against outcomes is not clear. Both in Scotland and elsewhere in the UK, there is a lack of research evaluating drug treatment effectiveness in a prison setting.

While the Scottish Government has attempted to provide integrated care for drug users (Effective Interventions Unit, 2002), the challenges of providing comprehensive and coherent services across the Scottish Prison System (SPS) is considerable. However progress is ongoing and a range of interventions are available for prisoners in Scotland (Throughcare Addiction Services and Phoenix Futures) aimed at identifying and addressing addiction needs. To date, there have been limited evaluations of such provisions although monitoring and assessment at the local level is ongoing. In 2006, Taylor et al conducted an examination of prisoners' perspectives (rather than impact or outcomes) on the role of methadone maintenance in Scottish prisons, while Shewan et al (2006) conducted an evaluation of the implementation of the SPS Strategy on the Management of Drug Misuse, highlighting areas of good practice and identifying concerns in the operation of the Strategy. The most recent strategy Framework for the Management of Substance Misuse in Custody was introduced in 2010 (http://www.sps.gov.uk//Default.aspx?DocumentID=625ef22e-8426-42a5-97a0-e8c6369b2423). It is anticipated that an evaluation of the Addiction Support Area in HMP Edinburgh, based on a therapeutic community approach (see Footnote 1) will begin in 2011.

While to date, there have not been evaluations of drug treatment interventions in Scottish prisons which examine outcomes, between 2008-09, 23% (4,845) of the total entries to prison were offered an Integrated Case Management (ICM) Substance Misuse Assessment, with 95% of those eligible (4,596) accepting and undertaking this assessment (NHS, 2010). According to a census (12 December 2008), 19% of the prison population on that day (1,487) prisoners were being prescribed methadone (NHS, 2010).

Findings from the DORIS study in Scotland, which was undertaken between 2001 and 2004 (McKeganey et al, 2008 – see Footnote 15), noted some important differences in outcomes between the community and prison samples. Prison respondents experienced reductions in drug consumption and non-drug outcomes; however improvements were greater for respondents who had accessed community

[28] This can be a particular problem for remand prisoners when release is unplanned.

interventions, who also received a broader range of treatment and support than the prison sample. Importantly, clients of prison drug treatment services had much more negative opinions of the intervention they had received in prison than their community counterparts. Clearly, such factors could impact on prisoners' motivation to access prison-based treatment.

The introduction of the Scottish Prison Service Transitional Care Initiative from 2001 highlights the challenges of linking released prisoners to community services (MacRae et al, 2006). This initiative targeted problem drug users who were not already subject to mandatory post-release supervision with the aim of linking them into community services. Prisoners were assessed within prisons and linked into sub-contracted staff based in the community who they were expected to meet with up to three times over a 12 week period to identify and address any support needs they may have. However, just over 28% of those assessed as suitable attended a post-release appointment. Seven months after release, those who had received transitional care were no less likely to have unresolved needs than those who had not and there were no differences in relation to health, substance use, injecting behaviour, housing, employability or involvement in crime.

In Scotland, the Throughcare Addiction Service (TAS) was introduced in 2005 and aims to provide a continuity of care for those leaving custody who want to receive addiction services in the community. It aims to achieve a transition from interventions for drug problems received in prison to interventions in the community following release. Prior to release, a Community Integration Plan (CIP) is put in place which establishes a pathway forward to continue the work undertaken in prison, in the community. TAS works with the prisoner in the six weeks prior to release and six weeks after release. The service has not yet been evaluated but information is collected on aggregate (number of individual TAS cases and number of individuals who received a TAS service) and annual returns (providing specific information on those individuals in receipt of a TAS service) (Scottish Government, 2008c).

Overall, while there is no clear evidence of the outcomes or costs associated with interventions in prison in Scotland, reviews of existing evidence collated elsewhere (England primarily) indicate that improved outcomes appear to be evidenced relative to time spent in treatment and treatment completion, better outcomes are also reported for prisoners who receive aftercare following completion of a programme or treatment along with 'wraparound' services such as housing and related support. However, there is no way of knowing the potential cumulative effects of multiple treatments (either in prison, or in both prison and the community) or how different treatment interventions interact.

Evaluations of prison interventions outside Scotland

Burrows et al, (2001) examined the nature of drugs throughcare for prisoners with serious drug problems in England; considering the treatment and support offered to prisoners making the transition from prison to the community. The research examined the impact of these interventions on ex-prisoners' drug taking and offending behaviour on release. Their tracking study indicated that almost all ex-prisoners had taken drugs since their release and that 45% of their participants were taking heroin daily, although the number taking heroin daily had fallen from 66% of the sample to 45% and 14% had stopped taking drugs altogether for four months. Spending on drugs had fallen by 50% and while half of the participants reported committing crimes to support their habit, half said they had not returned to crime following their release.

While the complexity of providing appropriate services to short-term and remand prisoners is considerable, it has been acknowledged that the benefits of providing effective services to these groups would be significant for both the individual prisoner and wider community (Ramsay et al, 2005; Burke et al, 2006).

PricewaterhouseCoopers (2008) review of drug treatment effectiveness draws upon international research and highlights that the three main types of intensive drug treatment interventions in prisons consist of cognitive behavioural therapy (CBT), therapeutic communities and 12-step programmes. While all three interventions have shown positive outcomes, there have been acknowledged limitations on the quality of research undertaken. Additionally, therapeutic communities are limited in UK prisons (only four in England and Wales, McSweeney et al, 2008[29]) and because of their duration and intensity are usually considered appropriate for long-term prisoners only. Limited resources have led to a limited understanding of the factors which have greatest impact on outcomes. However, as evidence from the community has continually highlighted, programme impact is often directly related to the quality of the relationship between workers and clients.

The available evidence on cognitive behavioural therapy (CBT), and 12-step programmes in prison is limited but suggests potentially positive findings. While interventions such as Narcotics Anonymous (NA) and Alcoholics Anonymous (AA) provide a service in many prisons, there is very little research evidence available due largely to the mutual aid nature of the provision (see Yates and Malloch, 2010). However, evaluations of RAPt (Rehabilitation of Addicted Prisoners Trust) which is a 12-step, abstinence-based model, originally of American origin and available in prisons in England as an accredited drug treatment programme, have shown that RAPt graduates do achieve reductions in both drug use and offending on their release (Ramsay, 2003; Martin and Player, 2000). The evaluation conducted by Martin and Player in England provided evidence that RAPt graduates were more likely than non-graduates (compared to a group of non-completers and a group who had applied for, but never started, the programme) to abstain from use and less likely to be reconvicted within a year of release.

Most research which informs prison policy is drawn from international or community settings due to the absence of robust evaluations in the UK. Their application to UK prison environments may be limited due to divergent operational systems internationally, and to the difficulty of transferring community based research into the specific environment of the prison. As identified elsewhere (Paylor et al, 2010), given the nature of interventions in prison, there is often very little follow-up after release and subsequent interventions may be accessed in the community making it difficult to evaluate the effectiveness of prison interventions or to isolate their impact from other resources.

PricewaterhouseCoopers (2008) set out guidance for good practice based on a review of prison-based drug treatment funding. Their comprehensive review highlights the difficulties of comprehensive evidence in this area and in relation to prison indicates the problems created by an over-reliance on Key Performance Targets (KPTs) which measure quantity and throughput (i.e. volume of activity) rather than quality and

[29] There is some overlap in the terminology used between 'therapeutic community' and 'drug free unit' in relation to prisons. While they are distinct concepts, the terms are often used interchangeably.

outcomes[30]. This concern is also reflected by Borrill et all (2003) and noted in the Scottish Government audit of Throughcare Addiction Services (Scottish Government, 2008). PricewaterhouseCoopers (2008) note the lack of research in relation to case management and psychosocial programmes while there has been more research evidence provided in relation to clinical services (assessment, detoxification, prescribing practices) but less investment in these services. They note that: "There is a need for more research evaluating care pathways and combinations of treatments" (PricewaterhouseCoopers, 2008:7). The report highlights the challenge for developing a 'cost-effective' service in a context where the effectiveness of a number of programmes is uncertain.

The recent review of drug treatment and interventions in prisons and for people on release from prisons in England was published in 2010 (Patel, 2010), highlighting the need to: improve the quality of drug treatment for people in prison and on release from prison through the development of clear standards and outcomes; increase innovation to reduce re-offending and drug-related deaths; achieve efficiencies and improve cost-effectiveness in treatment provisions in prison and for people released from prison.

Aftercare

The importance of ensuring released prisoners with drug problems are linked into appropriate services on release was highlighted by Burrows et al (2001) who noted that reform of the throughcare system could be best achieved through designation of responsibility to one specific service and the ring fencing of funds for this purpose. They also noted the need to ensure that those needing support on release had arrangements put in place in their home area (with local area services taking responsibility for this).

Aftercare was identified as necessary to ensure maximizing the effectiveness of interventions; without this, prisoners may benefit from the intervention at the time it is accessed, however without aftercare its impact is likely to diminish significantly over time (Fox et al, 2005; Home Office, 2005). Holloway et al (2005) also found that reductions in reoffending were directly related to levels of aftercare. Indeed, Ramsay et al (2005) suggest that after-care following release from prison of drug users is probably as important as providing interventions during custody on the basis of reviews of the evidence base. Similarly, Martin and Players (2000) draw on research from the USA which evidences the importance of after-care, notably residential after-care and transitional treatment facilities to reduce drug relapse and the likelihood of recidivism. Pelissier et al (2007) argue that more systematic research is needed to identify the most effective type and intensity of aftercare. However, as Martin and Players (2000) point out, there is a need for systematic support structures which can address the relationship between material deprivation associated with unemployment and poor housing, and the opportunities for crime and substance misuse that are evident in such environments; evidence of the multi-faceted effects of social exclusion.

[30] For example, some staff participating in the Review of Prison-Based Drug Treatment Funding (PricewaterhouseCooper, 2008) indicated that pressure to reach output based KPTs led to the selection of programme users based on their availability to complete the programme rather than on the severity of their dependence or the timeliness of the intervention for the individual.

5. WHAT WORKS FOR WHOM?

Evidence is limited in identifying the effectiveness of interventions for specific client groups in Scotland and internationally. Holloway et al (2005) note that some interventions appear to work better for different client groups. They highlight that interventions with women need to be suited to the needs of women to obtain successful outcomes (see also Loucks et al, 2006) and indicate that it may be worth investigating the interaction between type of programme and type of subject more closely. However, it is acknowledged that there is very little known about what works for whom (UKDPC, 2008). Indeed some basic information relating to throughput and output is not accessible. Further research is required before any clear conclusions can be presented, however some points can be identified:

Characteristics of treatment participants

Holloway et al (2005) identify some distinctions in relation to characteristics of programme participants, however this also related to methodology employed. For instance, the quantitative review showed that younger people were more responsive to interventions than older people (as age categories varied across studies there is no clear age identified for either group). However, meta-analysis showed that interventions were effective for both. Probation and parole supervision have shown to be particularly successful for young people[31].

This ambiguity is also evident in (Borrill et al, 2003) where young people are identified as particularly appropriate targets of programme intervention given their propensity to change given the less entrenched nature of drug use and offending behaviour. However, they are also less likely to appreciate the serious nature of their drug use and therefore less open to comply with treatment requirements.

Borrill et al, (2003) and Home Office, (2003) note that many young offenders had psychological and emotional problems that needed to be addressed in conjunction with their substance misuse. This may mean that an educational and harm minimisation approach is particularly appropriate for young male prisoners alongside an emphasis on throughcare in prison and on release.

The evaluations conducted in Scotland did not provide evidence of the impact of particular interventions in terms of ethnic group status, largely due to the very small number of black/ethnic minority groups involved with the criminal justice system at all levels in Scotland. Evidence from English studies does indicate however, that participants from ethnic minority groups appear to be more responsive to 'treatment' (Holloway et al, 2005). In general, it is the under-representation of ethnic minority groups in all forms of intervention that is commented upon rather than their actual participation (e.g. Fountain et al, 2007).

Particular considerations for women

The high incidence of drug problems experienced by women in the criminal justice system and female prisoners in particular has been recognised in Scotland and the UK. This appears to be an international phenomenon, with figures from North America indicating that while rates of drug dependency was between two and ten times higher

[31] It was not within the remit of this study to examine the impact of interventions on young people; this is noted but not examined in detail.

than the general population, while for women it was more marked at up to 13 times higher than the general population indicating that service provision for female prisoners should be a priority. Loxley and Adams (2009) study of women based on findings from the Drug Use Monitoring in Australia Program found that from the women in their study drug use leads to crime, while for men it is more likely that crime leads to drug use or that the two occur in a similar period. Although female detainees were found to be more likely than male detainees to report current or prior involvement in a drug or alcohol treatment programme, women were also more likely than men to report having been unable to access a treatment programme because of a lack of available places and were more likely to demonstrate high levels of personal distress at the point of arrest (Loxley and Adams, 2009). That said, women are likely to benefit from services to help them deal with their drug use before they become deeply enmeshed in the criminal justice system.

The problems that women experience as drug users tend to be different to men (Simpson and McNulty, 2008) and these issues are exacerbated when women are drawn into the criminal justice system. There is widely accepted evidence that women have different treatment needs to men particularly with regard to relationships and children (Borrill et al, 2003; Bloom et al, 2003; Malloch and Loucks, 2008; Thom 2010). Women often report being introduced to drug use initially by male partners (Jamieson et al, 1999) and are less likely to have a partner who actively supports them in their recovery from drugs than men (McIvor et al, 2006). Taking these issues into account, academics and practitioners have identified some of the key components for effective programme content, based on an understanding of women's lives and the extent to which any interventions relating to substance use and offending behaviour require an acknowledgement of the broader contexts.

Borrill et al (2003) identified significant unmet demand for treatment services for women prisoners in England. In particular, women in their study expressed a need for 'someone to talk to'. They noted that while assessment and detoxification were important, further developments should concentrate on interventions and treatment, particularly for women on remand or serving short sentences. They noted that therapeutic community and rehabilitation programmes had only reached a small proportion of women who may benefit, from their sample.

Drug Courts and DTTOs have been limited in female referrals and given the mandatory model of treatment, have resulted in difficulties for a number of women in their ability to comply (Howard League, 2000), although evidence on rates of compliance is mixed (Malloch and McIvor, 2011). While DTTO IIs are viewed as a 'woman friendly' disposal (McCoard et al, 2010), the stringent requirements imposed on women sentenced on the basis of 'low-tariff' offences can be viewed as problematic, particularly given the lack of evidence currently available for the consequences of non-compliance. Current evidence suggests that 'net-widening' to include less problematic drug users is likely to be inefficient and could be harmful (UK Drug Policy Commission, 2008). Similarly, evidence from the United States on the effects of coerced treatment and use of Drug Courts is mixed, surrounded by uncertainty regarding outcomes and raising issues of intrusion for 'low-risk' female offenders. Generally low rates of referral of women to the Drug Courts are largely attributed to their lower tariff offending patterns. Introduction of the use of Structured Deferred Sentences in Glasgow Drug Court meant that an increased number of women could be referred to the Drug Court. Given the relatively high breach rate (for non-compliance) for women on DTTOs, this sentence also provided a disposal for individuals who

were considered less likely/able to comply with the stringent conditions of a DTTO. The ability of Drug Courts to respond effectively to women and other groups (i.e. indigenous offenders) has been questioned elsewhere resulting in the establishment of the first Drug Court for women in Michigan in 1992. Drug Court programmes for women have subsequently been introduced in other states; for example, the Brooklyn Treatment Court whose resources for women include an on-site health clinic, vocational counselling, support to help women re-establish links with their children and in finding affordable, good quality childcare.

Holloway et al (2005) point out that in order to obtain successful outcomes for women, it is important to ensure that treatment is suited to meet their needs. This may vary for different groups. As Ramsay (2003) highlights from the studies he examined, white women prisoners had particularly high rates of drug dependency (usually involving opiates) in comparison to black women who had lower rates of dependency and which tended to involve crack rather than heroin. This suggests the importance of addressing the needs of women but also to take into account different patterns of drug use among ethnic groups. These issues also impact on attaining and sustaining recovery (Thom, 2010).

Projects such as the 218 Centre in Glasgow (Loucks et al, 2006; Malloch and Loucks, 2007; Malloch et al, 2008) demonstrate the value of a gender responsive approach to the women who use the resources, even where its impact is difficult to measure in quantifiable terms (see also Bloom et al, 2003). The centrality of relationships in engaging women with addictions, in conjunction with a flexible and comprehensive service, was considered to be crucial by workers, women using the service and other agencies. The initial evaluation of the 218 Centre (Loucks et al, 2006) reported that 83% of those interviewed (52 women) said their drug use and/or alcohol use had decreased or stopped (mostly the latter) at the time of interview. Reducing and/or ending substance use was considered an important way of reducing and/or ending offending behaviour, as other research suggests (Hough et al, 2003; McIvor, 2004). This also had a significant impact on other areas of the women's lives, with 42 women (67% of those interviewed) providing specific examples of direct improvements to their health and well-being, as a result of attending 218.

The effectiveness of a service like 218 is often difficult to measure in quantifiable terms, particularly in light of its broad remit and changes in its structure over the course of the initial evaluation. Statistics able to identify changes in sentencing patterns and criminal justice outcomes were not available during the evaluation, as any meaningful attempt to establish reconviction data requires a two-year follow up period. Nonetheless, interviews with sentencers and prosecutors showed that they made use of 218 and valued it as a resource. In individual cases, referrals to 218, through diversion from prosecution or direct bail, often successfully prevented women from entering custody, at least in the short term, and it is likely that women who engage with services at 218 will avoid custody in the short and longer term.

The absence of measurable outcomes made cost-effectiveness impossible to assess during the course of the evaluation. Comparisons of costs, however, determined that the average cost per engagement at 218 (£7,701), equalled the cost of 2.6 months in prison. The average length of stay at 218 was 2.6 months, but this is based on those cases where complete information was available. Data from project records on the length of time spent at the project were missing or incomplete for just over half of the women, often because they were still engaged with the project. This evaluation and

other previous research demonstrated numerous benefits associated with the range and level of services provided at 218 which are not offered over the course of short-term custodial sentences. However, limiting measurements to quantifiable and immediate criminal justice outcomes misses the contribution 218 is likely to make to longer-term crime prevention.

6. CONCLUSIONS

(i) Scottish Evaluations

Focusing on Scotland, there is a real challenge in attempting to compare one intervention with another in terms of effectiveness, given the variations in the scope and nature of the evaluations conducted.

What does the available evidence indicate in terms of effectiveness?

- There have been an increasing number of referrals to treatment through the criminal justice system with completion rates variable.
- Those who complete an order or intervention have lower reconviction rates than those who do not.
- Engagement with treatment, and readiness to engage with treatment, tends to be the precursor of success.
- In Scotland, there is evidence to suggest that Drug Courts and DTTOs have some level of effectiveness in reducing both drug use and reoffending rates for those clients who engage with the intervention. However, there is currently insufficient evidence to measure the effectiveness of diversion from prosecution, arrest referral, prison throughcare, low tariff DTTOs (DTTO II).
- Prison interventions appear to be more costly if the basic cost of imprisonment is considered, and less effective than community interventions.
- The availability of support and aftercare is crucial in reducing risk of relapse and indeed, overdose on release from prison.
- It is a consistent finding that the greatest reductions in drug-related offending occur during treatment interventions.
- Given the estimated rate of offending for many dependent users, interventions may cover their costs in terms of immediate savings to the criminal justice system.
- While men are the predominant recipients of drug interventions in Scotland, there is evidence that gender responsive interventions are particularly effective with women.
- There is no conclusive evidence however to extrapolate definitively, what works for whom.

(ii) Wider Literature

While the criminal justice system has continued to be a gateway to drug treatment as a key component of recent strategies, addressing the needs of problem drug users involved in drug related crime in the community rather than in prison, has a number of advantages, including access to a wider range of more effective services, and avoiding the negative impact of imprisonment.

- UK evidence suggests that drug treatment can reduce drug use and reoffending for some individuals and several studies indicate that referrals to treatment through the criminal justice system and ‘voluntary’ referrals may be equally effective.
- Evidence from DTORS indicates that the cost benefit outcomes of treatment interventions are significant (2.5:1).
- The importance of a ‘holistic’ approach is noted, recognising the structural issues that are a feature of the lives of individual drug users who come into contact with the criminal justice system (in terms of housing, family relationships, legal issues etc).

- Recovery cannot be obtained by traditional measures of effectiveness but requires a broader examination of pathways into recovery (e.g. Best et al, 2010; Yates and Malloch, 2010) and a wider examination of current policies and systems (i.e. investing in communities may provide better outcomes than individualised policies of crime prevention).
- Evidence from England and North America suggests there is reasonable evidence to support the effectiveness of methadone maintenance (prisons and community) (Coid et al, 2000), RAPt 12-step abstinence-based programme in prisons (Ramsay 2003; Martin and Player, 2000), therapeutic communities in prisons. Roberts et al (2007) and Best et al (2010) also indicate that therapeutic communities have shown some success, however there are very few in place in prisons in England and Wales (McSweeney et al, 2008). Holloway et al (2005) also identify drug courts and therapeutic communities as the most effective interventions in reducing drug-related crime. However most of these findings are based on a small number of studies with small sample sizes making it important that findings are treated with caution.

What are the gaps in knowledge about interventions for problem drug users in the criminal justice system?

- It is not possible to isolate the impact of criminal justice interventions overall as there is no way to assess whether individuals would have accessed treatment in other ways.
- There is no basis for reliable comparisons of the effectiveness or value for money of different interventions; many of the evaluations currently available differ in terms of methods, measures used and time-frames.
- There is limited (and mixed) evidence for the most effective interventions for specific groups although there are some clear indications, drawn from international evaluations, of how best to meet the needs of women.
- Analysis of costs are generally available but reconviction data is not; largely due to the time lapse required between the commissioning of evaluations (often initial process evaluations) and the appropriate time necessary to gather reconviction and other outcome based data (approximately two years).
- Overall problems of measuring costs and assessing outcomes limit the accuracy of any potential conclusions in relation to cost-effectiveness/value for money.

While the focus of this review has been to examine interventions within the criminal justice system, there have been, and continue to be, ongoing concerns that focusing interventions here will divert resources from community provisions, omitting the potential for preventive strategies at an earlier stage. Similarly, after-care is 'absolutely vital' (Ramsay, 2003: viii) to the success of drug treatment in prison.

The impact of overcrowding and short sentences clearly impact on the effectiveness of interventions introduced into the prison setting and the evidence currently available on the effectiveness of prison interventions is limited. However community interventions are more likely to result in lower rates of reoffending and offer better value for money. In terms of greater improvements, evidence from the DORIS study in Scotland (2001-2004) indicated that while drug treatment (in general) was beneficial in the short term at least, clients of community drug agencies experienced greater improvements than the clients of prison-based services. Community drug agency clients experienced a broader range of support than clients of prison-based

services and viewed the service they had received more positively (Neale and Saville, 2004; McKeganey et al, 2008)

Two issues are evident: firstly that drug addiction/dependence can be a long-term and complex condition and it is probably impossible to isolate the impact of specific interventions from the broader social, political and economic context of the individuals' circumstances. This underlines the importance of the wider 'recovery' agenda set out in Scotland's current drug policy.

Secondly, that despite the introduction of a range of interventions within the criminal justice system there are clear limitations in the evidence available to determine effectiveness overall, or of individual initiatives. This applies to Scotland and to the rest of the UK (UK Drug Policy Commission, 2008) and internationally. There is still a need to identify what works best for whom and in particular, to consider the impact of interventions on women. There are major gaps in evaluations that provide comparisons between interventions (see also UK Drug Policy Commission, 2008) and only very limited assessment of outcomes exist. There remains a need for a comparative study of costs and benefits of individual interventions, and between community and prison-based interventions.

The evidence base for interventions in Scotland (as elsewhere, UK Drug Policy Commission, 2008) is relatively weak with much of the existing evaluations undertaken as process rather than outcome studies and carried out at the implementation stages of initiatives. More robust evidence would need to come from longer-term evaluations which focused on reoffending rates, but also on a wider range of interventions aimed at promoting reintegration and sustaining recovery (such as housing, education, employment) and the integration of these services.

REFERENCES

Ashton, M. (2007) *The New Abstentionists,* Drug and Alcohol Findings, http://findings.org.uk

Barry, M. and McIvor, G. (2000) *Diversion from Prosecution to Social Work and Other Service Agencies,* Edinburgh: Scottish Office.

Bennett, T. (1995) *A Feasibility Study of Drug Testing of Arrestees in England and Wales.* Cambridge: Institute of Criminology.

Bennett, T. (2000) *Drugs and Crime: The Results of the Second Development Stage of the NEW-ADAM Programme,* London: Home Office Research Study 205.

Best, D. et al, (2003) *Evaluating the Effectiveness of Drug Treatment and Testing Orders in London,* London: National Addiction Centre.

Best, D., Rome, A., Hanning, K., White, W., Gossop, M., Taylor, A. and Perkins, A. (2010) *Research for Recovery: A Review of the Drugs Evidence Base,* Edinburgh: Scottish Government.

Birch, A., Dobbie, F., Chalmers, T., Barnsdale, L. and McIvor, G. (2006) *Evaluation of the Arrest Referral Pilot Schemes,* Edinburgh: Scottish Executive.

Bloom. B., Owen, B. and Covington, S. (2003). *Gender Responsive Strategies: Research, Practice and Guiding Principles for Women Offenders.* US Department of Justice: National Institute of Corrections.

Borrill, J., Maden, A., Martin, A., Weaver, T., Stimson, G., Farrell, M. and Barnes, T. (2003) *Differential Substance Misuse Treatment Needs of Women, Ethnic Minorities, and Young Offenders in Prison: Prevalence of Substance Misuse and Treatment Needs,* Home Office Online Report 33/03.

Bradford, B. and McQueen, S. (2011) *Diversion from Prosecution to Social Work in Scotland: A Snapshot of Current Patterns and an Examination of Practice in Three Community Justice Authorities,* University of Edinburgh: SCCJR.

Burke, L., Mair, G. and Ragonese, E. (2006) 'An Evaluation of Service Provision for Short-term and Remand Prisoners with Drug Problems', *Probation Journal,* Vol. 53 (2), 109-123.

Burrows, J., Clarke, A., Davison, T., Tarling, R., and Webb, S. (2001) *Research into the Nature and Effectiveness of Drugs Throughcare,* London: RDS Occasional Paper No. 68.

Casey, J., Hay, G., Godfrey, C., Parrot, S. (2009) *Assessing the Scale and Impact of Illicit Drug Markets in Scotland,* Edinburgh: Scottish Government.

Christo, G. (2010) 'Rehab evidence and NTORS', *Addiction Today,* November 14, http://www.addictiontoday.org

Coid, J., Carvell, A., Kittler, Z., Healey, A. and Henderson, J. (2000) *The Impact of Methadone Treatment on Drug Misuse and Crime,* London: Home Office, Research Findings No. 120.

Community Justice Services (2009) *Review of the Glasgow and Fife Drug Courts: Report,* Edinburgh: Scottish Government.

Davies, L., Jones, A., Vamvakas, G., Dubourg, R. and Donmall, M. (2009) *The Drug Treatment Outcomes Research Study: Cost Effectiveness Analysis,* London: Home Office.

Dawson, W. and Zandvoort, A. (2010) 'The Therapeutic Community as a Method of Intervention' in R. Yates and M. Malloch, *Tackling Addiction: Pathways to Recovery*, London: Jessica Kingsley Publishers.

Dekker, J., O'Brien, K. and Smith, N. (2010) *An Evaluation of the Compulsory Drug Treatment Program (CDTP),* New South Wales: Bureau of Crime Statistics and Research.

De Leon, G. (2010) 'The Therapeutic Community: A Recovery-Oriented Treatment Pathway and the Emergence of a Recovery-Oriented Integrated System' in R. Yates and M. Malloch, *Tackling Addiction: Pathways to Recovery,* London: Jessica Kingsley Publishers.

DIP Strategic Communications Team (2008) *Evidence of the Impact of the Drug Interventions Programme: Summaries and Sources,* London: Home Office.

Donmall, M, Jones, A., Davies, L. and Barnard, M. (2009) *Summary of Key Findings from the Drug Treatment Outcomes Research Study (DTORS)* London: Home Office.

Edmunds, M., Hough, M., Turnbull, P. and May, T. (1999) *Doing Justice to Treatment: Referring Offenders to Drug Services,* DPAS Paper 2, London: Home Office.

Edmunds, M., May, T., Hearnden, I., Hough, M. (1998) *Arrest Referral: Emerging Lessons from Research,* London: Home Office.

Effective Interventions Unit (2002) *Integrated Care for Drug Users: Principles and Practice,* Edinburgh: Scottish Government.

Eley, S., Gallop, K., McIvor, G., Morgan, K. and Yates (2002a) *Evaluation of Pilot Drug Treatment and Testing Orders,* Edinburgh: Scottish Executive Central Research Unit.

Eley, S., Malloch, M., McIvor, G., Yates, R. and Brown, A. (2002b) *Glasgow's Pilot Drug Court in Action: The First Six Months,* Edinburgh: Scottish Executive Social Research.

Fox, A., Kahn, L., Briggs, D., Rees-Jones, N., Thompson, Z. and Owens, J. (2005) *Throughcare and Aftercare,* London: Home Office Online Report 01/05.

Frondigoun, L., Dorrer, N., Morrison, S. (2010) *Evaluation of the Turnaround Service*, Glasgow: Glasgow Caledonian University.

Gebelein, R.S. (2000) 'The Rebirth of Rehabilitation: Promise and Perils of Drug Courts', *Sentencing and Corrections: Issues for the 21st Century*, Washington D.C: National Institute of Justice.

Gilman, M. and Pearson, G. (1991) 'Lifestyles and Law Enforcement' in D. Whynes and P. Bean, *Policing and Prescribing*, London: MacMillan.

Godfrey, C., Eaton, G., McDougall, C. and Culyer, A. (2003) *Economic and Social Costs of Drug Misuse*, London: Home Office Research Study 249.

Godfrey, C., Stewart, D., and Gossop, M. (2004) 'Economic analysis of costs and consequences of the treatment of drug misuse: 2-year outcome data from the National Treatment Outcome Research Study (NTORS)', *Addiction*, 99, 697-707.

Gossop, M. (2005) *Drug Misuse Treatment and Reductions in Crime: Findings from the National Treatment Outcome Research Study (NTORS)*, London: National Treatment Agency for Substance Misuse.

Gossop, M., Marsden, J. and Stewart, D. (2001) *NTORS: After Five Years*, London: National Addiction Centre.

Hearnden, I. and Harocopos, A. (1999) *Problem Drug Use and Probation in London*, London: Home Office Research Findings No. 112.

Home Office (2003) *The Substance Misuse Treatment Needs of Minority Prisoner Groups: Women, Young Offenders and Ethnic Minorities*, London: Home Office Development and Practice Report 8.

Home Office (2005) *Reducing Reoffending National Action Plan*, London: Home Office.

Home Office (2006) *Drug Intervention Programme and Prolific and other Priority Offenders Programme: Emerging Practice and Lessons Learned*, London: Home Office Drug Interventions Programme.

Holloway, K., Bennett, T. and Farrington, D. (2005) *The Effectiveness of Criminal Justice and Treatment Programmes in Reducing Drug-Related Crime: A Systematic Review*, Home Office Online Report 26/05.

Hough, M. (1996) *Drug Misuse and the Criminal Justice System: A Review of the Literature*, London: Home Office.

Howard League (2000) *A Chance to Break the Cycle: Women and the DTTO*, London: Howard League for Penal Reform.

Hucklesby, A.et al (2007) *The Evaluation of the Restriction on Bail Pilot Final Report*, London: Home Office.

Jamieson, J., McIvor, G., Murray, C. (1999) *Understanding Offending Among Young People.* Edinburgh: The Stationary Office.

Jones, A., Donmall, M., Millar, T., Moody, A., Weston, S., Anderson, T., Gittins, M., Abeywardana, V. and D'Souza, J. (2009) *The Drug Outcomes Research Study: Final Outcomes Report,* London: Home Office.

Latimer, J., Morton-Bourgan, K., and Chretien, J. (2006) *A Meta-Analytic Examination of Drug Treatment Courts: Do They Reduce Recidivism?* Ottawa: Canadian Department of Justice.

Lind, B., Chen, S., Weatherburn, D. and Mattick, R. (2005) 'The Effectiveness of Methadone Maintenance in Controlling Crime: An Australian Aggregate-Level Analysis' *British Journal of Criminology,* 45, 201-211.

Lister, S. and Wincup, E. (2010) 'Policing Problem Drug Users' in A. Hucklesby and E. Wincup (2010) *Drug Interventions in Criminal Justice,* Maidenhead: Open University Press.

Loucks, N.; Malloch, M.; McIvor, G. and Gelsthorpe, L. (2006) *Evaluation of the 218 Centre,* Report to Scottish Executive Justice Department. Edinburgh: Scottish Executive.

Loxley, W. and Adams, K. (2009) *Women, Drug Use and Crime: Findings from the Drug Use Monitoring in Australia Program,* Canberra: Australian Institute of Criminology Reports, Research and Public Policy Series 99.

Lloyd, C. and McKeganey, N. (2010) *Drugs Research: An Overview of Evidence and Questions for Policy,* York: Joseph Rowntree Foundation.

Macdivitt, K. (2008) *An Evaluation of the Structured Deferred Sentence Pilots,* Edinburgh: Scottish Government.

MacDonald, M. (2004) *A Study of Existing Drug Services and Strategies Operating in Prisons in Ten Countries from Central and Eastern Europe,* Poland: Central and European Network of Drug Services in Prison and Cranstoun Drug Services.

MacRae, R., McIvor, G., Malloch, M. and Barry, M. (2006) *Evaluation of the Scottish Prison Service Transitional Care Initiative,* Edinburgh: Scottish Executive.

Mair, G. and Millings, M. (2010) 'Arrest Referral and Drug Testing' in A. Hucklesby and E. Wincup (2010) *Drug Interventions in Criminal Justice,* Maidenhead: Open University Press.

Mallender, J., Roberts, E. and Seddon, T. (2002) *Evaluation of Drug Testing in the Criminal Justice System in Three Pilot Areas,* London: Home Office Findings 176.

Malloch, M., Eley, S., McIvor, G., Beaton, K. and Yates, R. (2003) *The Fife Drug Court in Action: The First Six Months,* Edinburgh: Scottish Executive.

Malloch, M. (2008) 'A Spoonful of Sugar? Treating Women in Prison' in Tammy Anderson (ed) *Neither Victims nor Villains,* United States: Rutger University Press.

Malloch, M. and Loucks, N. (2007) 'Drug and alcohol programmes for women' in *What Works with Women Offenders* (eds Rosemary Sheehan, Gill McIvor, Chris Trotter) Cullompton: Willan Publishing.

Malloch, M. and McIvor, G. (2011) 'Women, Drug Use and Community Interventions' in R. Sheehan, G. McIvor, and C. Trotter (eds) *Working with Women Offenders in the Community,* Cullompton: Willan Publishing.

Malloch, M., McIvor, G., Loucks, N. (2008) Time Out for Women: Innovation in Scotland in a Context of Change, *The Howard Journal,* Vol. 47, No. 4, 383-399.

Martin, C. and Player, E. (2000) *Drug Treatment in Prison: An Evaluation of the RAPt Treatment Programme,* Winchester: Waterside Press.

Matrix Knowledge Group (2008) *Dedicated Drug Court Pilots: A Process Report,* London: Ministry of Justice.

Matrix Research and Consultancy and Institute for Criminal Policy Research, King's College (2007) *Evaluation of Drug Interventions Programme Pilots for Children and Young People: Arrest Referral, Drug Testing, and Drug Testing and Treatment Requirements,* Home Office Online Report 07/07.

Matrix Research and Consultancy and NACRO (2004) *Evaluation of Drug Testing in the Criminal Justice System,* London: Home Office.

McCoard, S., Skellington Orr, K., Shirley, A., McCartney, P. (2010) *Process Evaluation of the Drug Treatment and Testing Orders II Pilots,* Edinburgh: Scottish Government Social Research.

McIvor, G. (2004) *Reconviction Following Drug Treatment and Testing Orders,* Scottish Executive, http://www.scotland.gov.uk/Resource/Doc/26350/0029550.pdf.

McIvor, G. (2009) 'Therapeutic jurisprudence and procedural justice in Scottish drug courts' *Criminology and Criminal Justice,* 9, 1: 29-49

McIvor, G. (2010) 'Drug Courts: Lessons From the UK and Beyond' in A. Hucklesby and E. Wincup (2010) *Drug Interventions in Criminal Justice,* Maidenhead: Open University Press.

McIvor, G. and Barry, M. (2000) *Social Work and Criminal Justice: The Longer Term Impact of Supervision,* Edinburgh: Scottish Government Crime and Criminal Justice Research Findings No. 50.

McIvor, G., Barnsdale, L., Eley, S., Malloch, M., Yates, R. and Brown, A. (2006) *The Operation and Effectiveness of the Scottish Drug Court Pilots,* Edinburgh: Scottish Executive Research Findings No. 81/2006.

McKeganey, N. (2010) 'Hard Evidence or Political Spin?' *Addiction Today,* 4 October, http://www.addictiontoday.org/addictiontoday/2010/10/nta-treatment-outcome-research.

McKeganey, N., Bloor, M., McIntosh, J. and Neale, J. (2008) *Key Findings from the Drug Outcome Research in Scotland (DORIS) Study,* Glasgow: Centre for Drug Misuse Research, University of Glasgow.

McSweeney, T. (2010) 'Recovery, Desistance and 'Coerced' Drug Treatment' In R. Yates and M. Malloch, *Tackling Addiction: Pathways to Recovery*, London: Jessica Kingsley.

McSweeney, T., Stevens, A., Hunt, N. (2006) *The Quasi-Compulsory Treatment of Drug-Dependent Offenders in Europe: Final National Report,* QCT Europe.

McSweeney, T., Stevens, A., Hunt, N. and Turnbull, P. (2007) 'Twisting Arms or a Helping Hand? Assessing the impact of 'coerced' and comparable 'voluntary' drug treatment options', *British Journal of Criminology,* 47, 3: 470-90.

McSweeney, T., Stevens, A., Hunt, N. and Turnbull, P. (2008a) 'Drug Testing and Court Review Hearings: Uses and Limitations, *Probation Journal,* 55(1): 39-53.

McSweeney, T., Turnbull, P. and Hough, M. (2008b) *The Treatment and Supervision of Drug-Dependent Offenders: A Review of the Literature Prepared for the UK Drug Policy Commission,* London: UKDPC.

National Audit Office (2004) *The Drug Treatment and Testing Order: early lessons,* London: The Stationary Office.

National Treatment Agency for Substance Misuse (2009) *Breaking the Link: The Role of Drug Treatment in Tackling Crime,* London: NTA.

Neale, J. and Saville, E. (2004) 'Comparing Community and Prison-Based Drug Treatments', *Drugs: Education, Prevention and Policy,* Vol, 11, No. 3, 213-228.

Newcombe, R. (2003) *Drug Use, Crime and Social Exclusion among Prisoners in England, Italy and Spain-Before, During and After Imprisonment,* Manchester: Lifeline Project for the European Commission: VP/2000/008.

Patel, Lord (2010) *The Patel Report: Prison Drug Treatment Strategy Review Group,* London: Home Office.

Paylor, I., Hucklesby, A. and Wilson, A. (2010) 'Drug Interventions in Prison' in A. Hucklesby and E. Wincup (2010) *Drug Interventions in Criminal Justice,* Maidenhead: Open University Press.

Pelissier, B., Jones, N. and Cadigan, T. (2007) 'Drug Treatment Aftercare in the Criminal Justice System: A Systematic Review', *Journal of Substance Abuse Treatment,* 32 (3) 311-320.

Perry, A., Coulton, S., Glanville, J., Godfrey, C., Lunn, J., McDougall, C., Neale, Z. (2008) *Interventions for Drug-Using Offenders in the Courts, Secure Establishments and the Community (Review),* The Cochrane Collaboration, John Wiley and Sons Ltd.

PricewaterhouseCoopers (2008) *Report to the Department of Health and Ministry of Justice: Review of Prison-Based Drug Treatment Funding*, London: Department of Health and Ministry of Justice.

Prochaska, J. and DiClemente, C. (1986) 'Towards a Comprehensive Model of Change, in W. Miller and N. Heather (eds) *Treating Addictive Behaviours: Processes of Change,* New York: Plenum Press.

Ramsay, M. (ed) (2003) *Prisoners' Drug Use and Treatment: Seven Research Studies,* London: Home Office Research Study 267.

Ramsay, M., Bullock, T. and Niven, S. (2005) 'The Prison Service Drug Strategy: The Extent to which Prisoners Need and Receive Treatment', *The Howard Journal,* Vol. 44, No. 3, 269-285.

Roberts, A., Hayes, A., Carlisle, J. and Shaw, J. (2007) *Review of Drug and Alcohol Treatments in Prison and Community Settings*, Manchester: University of Manchester for the Prison Health Research Network.

Roberts, M. (2003) *Drugs and Crime: From Warfare to Welfare*, London: NACRO.

Scottish Government (2008a) *The Road to Recovery: A New Approach to Tackling Scotland's Drug Problem,* Edinburgh: Scottish Governement.

Scottish Government (2008b) *Costs and Equalities in the Criminal Justice System 2005/06,* Edinburgh: Scottish Government.

Scottish Government (2008c) *Audit of the Throughcare Addiction Service (TAS),* Edinburgh: Scottish Government Criminal Justice Directorate.

Scottish Government (2010) *Criminal Justice Social Work Statistics, 2008-09,* Edinburgh: Scottish Government Statistical Bulletin.

Scottish Government (2010b) *Persistent Offender Project: an analysis of the costs and benefits,* unpublished paper.

Scottish Government Community Justice Services (2009) *Review of the Glasgow and Fife Drug Courts,* Edinburgh: Scottish Government.

Scottish Prison Service (SPS) (2009) *Remand Prisoners: 12th Survey Bulletin,* Edinburgh: SPS.

Shewan, D., Marshall, L., Wilson, G., Galloway, J. and Marley, C. (2006) *SPS Strategy on the Management of Drug Misuse: Pathways and Progression, an evaluation of referral, assessment and intervention.*

Simpson, M. and McNulty, J. (2008) 'Different Needs: Women's Drug Use and Treatment in the UK' *International Journal of Drug Policy,* 19, 2, 169-175.

Singleton, N., Murray, R., Tinsley, L. (eds) (2006) *Measuring Different Aspects of Problem Drug Use: Methodological Developments,* London: Home Office Online Report 16/06.

Smith, V. (2008) *Persistent Offender Project: Pilot Project Evaluation November 2006- March 2008,* Glasgow: Glasgow Addiction Services.

Sondhi, A., O'Shea, J., Williams, T. (2002) *Arrest Referral: Emerging Findings from the National Monitoring and Evaluation Programme,* London: Home Office DPAS Briefing Paper 18.

Thom, B. (2005) 'Women and Recovery' in R. Yates and M. Malloch, *Tackling Addiction: Pathways to Recovery,* London: Jessica Kingsley.

Turnbull, P., McSweeney, T., Webster, R., Edmunds, M. and Hough, M. (2000) *Drug Treatment and Testing Orders: Final Evaluation Report,* Home Office Research Study 212, London: Home Office.

Turnbull, P., Webster, R. and Stillwell, G. (1996) *Get It While You Can: an evaluation of an early intervention project for arrestees with alcohol and drug problems,* London: Home Office.

Uchtenhagen, A., Stevens, A., Berto, D., Frick, U., Hunt, N., Kerschl, V., McSweeney, T., Puppo, I., Santamaria, A., Schaaf, S., Steffan, E., Gegenhuber, B., Turnbull, P. and Werdenich, W. (2008) 'Evaluation of therapeutic alternatives to imprisonment for drug dependent offenders: Experience from a comparative European multi-country study, *Heroin Addiction and Related Clinical Problems,* 10, 5-10.

UK Drug Policy Commission (2008) *Reducing Drug Use, Reducing Reoffending: Consultation with Key Stakeholders to inform the UK Drug Policy Commission Report,* London: UKDPC.

Walker, J. (2001) *International Experience of Drug Courts*, Edinburgh: Scottish Executive Central Research Unit.

Wundersitz, J. (2007) *Criminal Justice Responses to Drug and Drug-Related Offending: Are They Working?* Canberra: Australian Institute of Criminology, Technical and Background Paper No. 25.

Yates, R., McIvor, G., Eley, S., Malloch, M. and Barnsdale, L. (2005) 'Coercion in Drug Treatment: The Impact on Motivation, Aspiration and Outcome', in M. Uffe Pedersen, V. Segraeus and M. Hellman (eds) *Evidence Based Practice? Challenges in Substance Abuse Treatment,* Finland: Nordic Council for Alcohol and Drug Research, NAD publication 47, 159-171.

Yates, R. and Malloch, M. (2010) *Tackling Addiction: Pathways to Recovery,* London: Jessica KingsleyPublishers.

ANNEX ONE: Measuring Effectiveness: Evaluations of Key Scottish Interventions[32]

	Reconviction rates[33]	**Reductions in drug use**	**Other measures of change**	**Estimated cost per intervention**	**Characteristics of client group**
Arrest Referral	Not known (nor is information on onward referrals)	Not known	Potential to link individuals into services, impact not known	Varied from £75 per offer of AR to £340 per achieved initial interview.	Predominantly white, male and aged over 40.
Persistent Offenders Project	Estimated overall drop in convictions by 28.5% & a reduction in prison time from 30.2 to 7.4 days (Police data)	Not known	Potential to link individuals into services, impact not known	Estimated that each £1 spend on the service leads to benefits of up to £14 in the form of reduced economic and social costs of crime.	Majority male, mean age of 31.5 years.
Probation with drug treatment conditions	Not known	Not known	Not known (breach statistics not broken down in terms of order conditions)	Not known – although standard probation order costs (2005-6) averaged £1,283.	Not known.
DTTOs	41% reconvicted within 12 months of order with 66% reconvicted within two years (2004) 72% after one year, 82% after two years (2009)	Evidence of reductions in positive drug tests and self reported reductions in drug use during Order	Self-reports of improved health and well-being during intervention. Scotland-wide successful completions (35%) (2005-8)	Estimated £14, 085 (2009)	77% adult males.
DTTO II pilots	Not known	Self-reported reduction in drug use supported by drug testing.	Self-reports of improved stability in social situation.	Estimated £8,396 per year (2008-9)	51% male, 49% female with average age of 29.6 for men and 25.1 for women
Drug Court Disposals	50% reconvicted within one year, 71% reconvicted within two years (2006). 70% after one year, 82% after two years (2009)	Decline in incidence of positive drug tests during intervention and self-reports of reductions in drug use	Self reports of improved health and well-being during attendance. Successful completion: Glasgow (53% of Orders made); Fife (38% of Orders made) (2005-2008)	Estimated £18,486 (2009)	Over 80% male, with an average age of 26 years.
Prison Throughcare	Not known	Not known	Not known	Not known, however average cost of a six month prison sentence (2005-6) was £15,964	Predominantly male
218 Centre	Not known.	Self-reports of reduced drug use/abstinence during attendance and short term follow-up; longer-term follow-up data not currently available.	Self-reports of improved health and well-being during attendance and short term follow-up; longer-term follow-up data not currently available.	Average cost of engagement with service (£7,701) (2005-6)	Adult women
Turnaround	Not known	Self-reports of reduced drug use/abstinence during attendance and short term follow-up; longer-term follow-up data not currently available.	Self-reports of improved health and well-being during attendance and short term follow-up; longer-term follow-up data not currently available.	Six month period of engagement at £2,788; and a cost of £11,673 per client for a six week period in the residential unit, or £13, 827.8 per client for residential and community support	Males aged 16-30

[32] These figures are drawn from Scottish evaluations discussed elsewhere in the report and should be treated with caution. There is no consistency of measures used and conclusions drawn from comparisons will be limited. In particular, time frames are variable making it impossible to compare one intervention with another in terms of cost or reconviction rate. The purpose of the table is to highlight the inconsistencies across measures of effectiveness and gaps in available knowledge.

[33] Reconviction rates were consistently lower for those who completed their orders than for those whose orders were revoked.