

Appendix E

Building effective interventions for drug users in the criminal justice system: A review of best practice

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Principles of treating drug users in the criminal justice system

Over the last two decades, there has been significant investment in research aimed at understanding what works in reducing reoffending. Specifically, systematic and expert reviews of the correctional literature have all largely concluded (see Andrews et al. 1990; MacKenzie, 2006; Wilson, 2016) that the most effective interventions and programs are those that: (a) use identified and validated actuarial risk assessment tools; (b) employ cognitive-behavioural techniques and services as a foundation of treatment and intervention; and (c) match offenders to appropriate service levels and intervention types based on prognostic risk and criminogenic need. These three principles now set the foundation for that which has become internationally recognised as best practice in community and custodial corrections.

Over much the same period, there has also been a significant investment in research aimed at understanding the drug-crime relationship – not surprisingly since such a sizable number of offender appearing before the criminal justice system are drug dependent or have histories of drug use. In Brisbane, for example, the Australian Institute of Criminology’s (AIC) Drug Use Monitoring in Australia program (DUMA) finds that three quarters (73%) of police detainees test positive to or self-report the recent use of at least one drug (Coughlan et al., 2015). Cannabis is the most prevalent drug (43%), followed by amphetamine (38%), benzodiazepines (27%) and opiates (23%). In terms of frequency, half of all police detainees interviewed in Brisbane reported using illicit drugs at least twice per week or more, and these detainees were considerably more likely (by a factor of 2.9) to have been arrested at least once in the past 12 months, not including their current episode of offending.

Tackling the problem of high-volume drug-related offending requires the concerted and cooperative effort of criminal justice and health agencies to identify and implement programmatic elements that improve outcomes for drug using and drug-dependent offenders. This requires consideration of both the drug treatment and criminal justice intervention literature and, more importantly, research demonstrating the impact of specific drug-treatment interventions offered as a consequence of criminal justice interaction. At the same time, there is a significant body of evidence that has sought to identify effective practice in the treatment of drug using offenders. This research has shown that behavioural treatments and medications administered in both community and criminal justice settings can reduce substance abuse and drug-related criminal behaviour and is cost effective in doing so (Chandler, Fletcher & Volkow, 2009).

Drawing on this large evidence-base, and to provide guidance to criminal justice and treatment professionals working with drug abusing offenders, the National Institute of Drug Abuse (NIDA) identified thirteen principles for effective drug addiction treatment for criminal justice populations (Box 1). The remainder of this section examines the application of these principles within an Australian and, in particular, Queensland context.

Box 1: National Institute for Drug Abuse - Principles of Drug Addiction Treatment for Criminal Justice Populations (2014)

1. Drug addiction is a brain disease that affects behaviour.
2. Recovery from drug addiction requires effective treatment, followed by management of the problem over time.
3. Treatment must last long enough to produce stable behavioural changes.
4. Assessment is the first step in treatment.
5. Tailoring services to fit the needs of the individual is an important part of effective drug abuse treatment for criminal justice populations.
6. Drug use during treatment should be carefully monitored.
7. Treatment should target factors that are associated with criminal behaviour.
8. Criminal justice supervision should incorporate treatment planning for drug abusing offenders, and treatment providers should be aware of correctional supervision requirements.
9. Continuity of care is essential for drug abusers re-entering the community. A balance of rewards and sanctions encourages pro-social behaviour and treatment participation.
10. A balance of rewards and sanctions encourages pro-social behaviour and treatment participation.
11. Offenders with co-occurring drug abuse and mental health problems often require an integrated treatment approach.
12. Medications are an important part of treatment for many drug abusing offenders.
13. Treatment planning for drug abusing offenders who are living in or re-entering the community should include strategies to prevent and treat serious, chronic medical conditions, such as HIV/AIDS, hepatitis B and C, and tuberculosis.

A shared understanding of drug dependency

Engaging criminal justice clients in the process of drug treatment and rehabilitation is undoubtedly a challenging prospect that requires recognition on the part of treatment and criminal justice practitioners of the chronic and relapsing nature of drug dependency. Importantly, all practitioners should be educated on the neurophysiological consequences of drug use and adopt strategies which **recognise dependency as a chronic brain disease**. Drug dependency, for example, has well-recognised cognitive, behavioural, and physiological characteristics that contribute to habitual use despite the harmful consequences. Consistent with this, neurologists have also found that regular drug use almost invariably results in alterations to the brain's anatomy and chemistry which can then persist even after and long periods of abstinence. These neurochemical changes are important for understanding why offenders, both during and after treatment, may persist in seeking drugs despite the consequences (Baler and Volkow 2006; Volkow et al. 2010; and Chandler et al. 2009). Of the 13 key principles identified by NIDA, system and community level recognition of drug addiction as a chronic disease is perhaps the most important. Without this, many or all of the remaining 12 principles would be that much more difficult to achieve given the philosophical tensions between criminal justice and health practitioners on the question of how best to respond to drug dependent offenders. Over the past three decades our sociological and criminological understanding of substance abuse has significantly advanced, in large part as a result of advances in neurobiological

and physiological models of drug dependency. Specifically, the neurochemical sciences have, more accurately than ever before, mapped the individual-level longitudinal consequences of drug use from first initiation to eventual cessation, focussing considerable effort to understand the physiological nature of drug dependency and the neurochemical and behavioural consequences of withdrawal. For criminal justice interventions with drug using or drug dependent offenders, some appreciation of the neurobiological nature of drug use, and its predictable behavioural consequences, is essential to designing appropriate drug-treatment interventions with the greatest chance of therapeutic and criminal justice success.

According to the American Society of Addiction Medicine (ASAM), a peak body for the conduct and dissemination of research on drug dependency, addiction is defined as a:

“...primary, chronic disease of the brain reward. Motivation, memory and related circuitry... characterised by inability to consistently abstain, impairment in behavioural control, craving, ... and a dysfunctional emotional response... which... without treatment or engagement in recovery activities, ... is progressive and can result in disability or premature death.”

Accordingly, to achieve drug abstinence requires much more than “just saying ‘no’”. It requires ‘treatment’ as the primary response, recognising that (Kushner, Peters and Cooper, 2014, p5):

- Recovery is a long term process, will likely entail relapses, and frequently requires multiple episodes of treatment;
- No single treatment modality is appropriate for everyone and thus there is a need for individualized treatment strategies that are flexible and responsive to individual and changing needs;
- Incarceration without treatment will not have a measurable impact on reducing substance use or crime (Leukefeld et al. 2002);
- Expectations for drug treatment participants in terms of program compliance and progression should differ, depending upon their individual situation(s) and stage of program participation;
- Not all participants will progress at the same pace and the drug court structure must therefore provide the flexibility to address the individual needs of each participant;
- Court-based interventions need to provide a continuum of treatment that assures patients access to needed levels and intensities of services, as and when they need them; and

Effective treatment must address the multiple needs of the individual, both substance addiction specifically and ancillary services, with particular focus on “criminogenic” factors.

A shared understanding of the drug-crime nexus

From the Australian research, several consistent conclusions can be drawn about the relationship between drug use and crime, namely that:

- The prevalence of drug use is significantly higher among criminal justice populations than in the general community and the differential is greater for more serious drug types such as heroin, amphetamine and cocaine (Australian Institute of Health and Welfare, 2011; Indig et al., 2010; Johnson, 2004a, 2004b; Kinner, 2006b; Kraemer et al., 2009; Makkai & Payne, 2003a, 2003b, 2005; Prichard & Payne, 2005b, 2005a).
- Offenders typically experiment with illicit drugs at younger ages than those who use drugs but do not have contact with the criminal justice system (Johnson, 2001). Moreover, it

seems the more serious the offender the younger they were when they first used drugs (Makkai & Payne, 2003a, 2003b, 2005; Prichard & Payne, 2005a, 2005b);

- There is modest association between specific drug types and specific crime types (Indermaur, 1995) although the association is likely the result of the pattern of usage more than the psychoactive properties of the drug (Bradford & Payne, 2012);
- Some offenders attribute their own offending to the use of drugs (Indermaur, 1995; Makkai & Payne, 2003a), though this can vary by drug type (Payne & Gaffney, 2012);
- Offending rates typically fluctuate according to levels of drug use (Dobinson & Ward, 1985; Johnson, 2004a, 2004b; Kraemer et al., 2009; Makkai & Payne, 2003a, 2003b, 2005; Prichard & Payne, 2005a, 2005b; Stevenson & Forsythe, 1998), but may also vary depending on the drug being used (Makkai, 2002);
- Offenders are typically more likely to report experimenting with drugs only after they are already involved in crime (Dobinson & Ward, 1985; D. Johnson, 2001; H. Johnson, 2004a, 2004b; Makkai & Payne, 2003a, 2003b, 2005; Prichard & Payne, 2005a, 2005b). However, this appears less so among female offender populations (Johnson, 2004a); and
- A history of drug use serves as a strong predictor of reoffending (Makkai, Ratcliffe, Veraar, & Collins, 2004), especially among prisoner populations who continue to use drugs in prison or who express an intention to re-use drugs upon their release (Kinner, 2006a).

As wealth of evidence grows, the drug-crime debate nevertheless remains plagued by the unanswered question of causality; whether it exists at all, and if it exists, in which direction it operates. The existence of a positive, albeit strong correlation between drug use and crime confirms only that the two phenomena regularly co-occur, but is not itself evidence that either one acts as a causal agent for the other. Although the question of causality is discussed in more detail later in this thesis, specifically with reference to its theoretical intersection in developmental criminology, here we are reminded of the complexity of the causal debate and its implications for understanding the prevention of drug use and crime. This complexity is eloquently described by Candido da Agra (2002) as centred on two different positions: those who favour a ‘co-occurrence model’ by rejecting causal relationships as spurious, and those who accept causality but disagree with respect to its strength and direction. From this, Agra (2002) argues that the drug-crime debate:

“sinks into a deep epistemological incoherence, for it confounds causal determinism with statistical determinism or co-occurrence and spurious relationship with the absence of determinism” (2002, p. 11).

In assessing the same complex mix of empirical findings Scott Menard and his colleagues (2001) point out that there are at least four competing explanations of the drug-crime relationship which can be summarised as:

- drug use leads to crime;
- crime leads to drug use (the inverse causality model; see Brochu, 1995);
- drug use and crime influence each other in a pattern of mutual causation; and
- that the relationship between drug use and crime is either coincidental or spurious and that both result from a common underlying aetiology (see also White & Gorman, 2000).

In support of their thesis and following a comprehensive review of the literature, Menard and colleagues (2001) conclude that the simple hypothesis that drug use causes crime is 'untenable' because in the vast majority of research, particularly that conducted with criminal justice populations, the initiation of drug use typically occurs subsequent to the onset of offending. Further, they conclude that once both crime and drug use have commenced, each appears to increase the probability that the other will continue. Most importantly for this thesis, they find that crime and drug use are related to one another in different ways and in different strengths across the life-course - that while some crime is caused by drug use and some drug use is caused by crime, both are also heavily influenced by a similar set of underlying factors such that during early adolescence both phenomenon are more heavily influenced by some common aetiology while at later ages they are more strongly related through a process of mutual causation.

Cautioning does no harm

For young people in particular, formal contact with the criminal justice system is likely more harmful than helpful. Decades of criminological research has demonstrated that formal criminal justice processing itself has the potential to increase significantly the likelihood of future criminal offending (Nagin, Cullen & Jonson, 2009). The reasons given for this strong empirical relationship are many and varied. Some argue that labelling effects consequently foreclose opportunities for prosocial engagement (Bernburg & Krohn, 2003; Bernburg, Krohn & Rivera, 2006; Ward, Krohn & Gibson, 2014), while others argue that early experience of the criminal justice system weakens perceived levels of deterrence. Whatever the cause, there is a general consensus that limiting a young person's contact with the criminal justice system is an appropriate goal, especially for non-serious status offences.

The use of cautioning, rather than apprehending, arresting and formally processing young people has been an important feature of the criminal justice system in all Australian jurisdictions (O'Connor & Cameron 2002; Polk et al. 2003; Wundersitz 1997). In Queensland, the *Youth Justice Act 1992* requires that the primary criminal justice system response to young people (aged 10-16 years) should be diversion, which in this context includes being informally cautioned or warned, formally cautioned, or referred to a family conference. For individuals who are not juveniles at the time of their apprehension (including 17 year old's), the diversion options described above are not available.

For minor drug offences in Queensland, juvenile offenders are eligible for formal cautioning under the *Youth Justice Act 1992*, but only one such caution can be issued. Adult offenders (and juveniles previously cautioned) are not eligible for cautioning. Instead they must be referred to a drug diversion assessment. The opportunity for referral to a drug assessment is limited to one referral only.

There is unequivocal evidence that informal and formal cautioning yields more favourable long term outcomes than formal processing (Payne and Weatherburn 2015). In Queensland specifically, the rate of recidivism (formal recontact) is considerably lower for juveniles who are cautioned compared to those who are required to appear in court for their first offence, although these analyses do not control for the severity of the presenting offence (Dennison, Stewart and Hurren 2006). While it is not possible to conclude that cautioning reduces offending based on this analysis, it does suggest that cautioning does not appear to increase offending compared with those young people whose first contact is a court appearance, which is an important finding. For offenders appearing for drug offences, no disaggregated analyses exist in the Queensland context. However, in other jurisdictions where cautioning programs are available for adult first-time cannabis possession offenders (NSW), cautioned offenders have recidivism rates that are considerably lower than is estimated for general

first-time offending populations (Payne, Kwaitkowski and Wundersitz 2008). In all, the analyses to date (although limited in number and methodological rigour) suggest that cautioning low-level drug offenders (both juveniles and adults) is likely to be a cheaper alternative to formal processing which doesn't worsen long-term criminal justice outcomes.

Brief interventions are promising alternatives

The emergence of brief interventions can be traced to the early 1980s, prompted by a call from the World Health Organisation to provide an evidence base for alcohol screening and brief intervention applications in the primary care setting (Babour et al., 2008). Coupled with motivational interviewing techniques and un-invasive cognitive exercises, brief interventions emerged primarily in the United States as a strategy for engaging substance users at the point of clinical presentation and encourage a reduction or cessation of use. Since then, the medical and drug treatment literature has seen a substantial body of research produced in favour of brief-interventions for clinical patients and clients presenting with mild to moderate substance use disorders (Roche and Freeman 2003). The vast majority of the 'what works' literature has thus been historically focused on brief interventions for alcohol and tobacco use (Roach and Freeman 2003), however a more recent literature has emerged testing the applicability of these strategies to other substances – specifically cannabis (Stephens et al., 2000; Copeland et al., 2004; Copeland and Swift 2009), and, to a lesser extent, amphetamines (Baker et al., 2001; 2003), benzodiazepines (Bashir et al., 1994; Heather et al., 2004) opiates (Sanders et al., 1995) and cocaine (Stotts et al., 2001). For illicit substances, clinical trials and other research studies have overwhelmingly focused on juvenile or young-adult populations. Recent studies have also examined the impact of brief interventions on violent offending and victimisation (Cheng et al., 2008; Walton et al., 2010).

According to the Australian Department of Health and Ageing, a brief intervention is one that “takes very little time... [are] usually conducted in a one-on-one situation, and can be implemented anywhere on the intervention continuum.” Consequently, brief interventions can last as little as 30-second (opportunistic) or can extend over several sessions of between 5 and 60 mins in length. The most oft-cited aims of a brief intervention are: (a) to engage those not yet ready for change; (b) to increase the perception of real and potential risks and problems associated with substance use; and (c) encourage change by helping individuals consider the reasons for change and the risks of not changing.

Brief interventions are generally underpinned by a Motivational Interviewing framework (Nathan and Gorman 2015). The FRAMES model (see Hester and Miller 1995), for example, includes six elements that are considered common components of empirically supported brief interventions. These are:

- Giving feedback on the risks and consequences of substance use;
- Emphasizing personal responsibility to change substance use;
- Giving concrete advice on how to modify substance use;
- Offering a menu of different change options; and
- Increasing an individual's self-efficacy to change their patterns of use.

In terms of efficacy, randomised control trials have generally concluded that brief interventions are more efficacious than no treatment at all for individuals with mild or moderate substance use disorders (Nathan and Gorman, 2015). Further, many studies often conclude that brief interventions can be just as effective as more intensive treatments, although this conclusion is often complicated at the meta-analytic level because studies vary considerably in their definitions of what constitutes 'brief' (Nathan and Gorman, 2015). According to Jonas et al., (2012), it is likely that the efficacy of a

brief intervention may have more to do with the number of multiple contacts than the length of each individual session. Similarly, it seems that multi-component interventions do not necessarily improve outcomes over simpler motivational interviewing or counselling sessions (Kaner et al., 2013). Finally, a review of systematic reviews for alcohol-based brief interventions have found generally positive outcomes, but warns that these results tend to be inconsistent for different demographic groups, across different cultural settings and in different intervention contexts (O'Donnell et al., 2013).

For illicit substance use there is comparatively little evidence of effectiveness, although this is mostly because intervention adaptations for substances other than alcohol and tobacco are only relatively new. Nevertheless, the results so far appear promising. Stephens and colleagues (2000) examined the outcomes for adult marijuana users seeking treatment. Through random assignment, individuals were offered either (1) an extended 14-session Cognitive-behavioural group-based treatment; (2) a brief 2-session individual treatment using motivational interviewing; or (3) a 4-month delayed treatment control (DTC) condition. Results indicated that for the two treatment conditions marijuana use, dependence symptoms, and negative consequences were reduced significantly at the 4, 7, 13, and 16-month follow-up. There was no significant difference in outcomes between the more intensive treatment and the brief intervention.

In a similar study by Copeland and colleagues (2004; 2001), 229 participants were assessed and randomly assigned to either a six-session CBT program, a single-session CBT intervention, or a delayed-treatment control (DTC) group. In the CBT interventions, participants were assisted in acquiring skills to promote cannabis cessation and maintenance of abstinence. Compared to the control group, better treatment outcomes were reported by participants in both the six and one session CBT program. Those receiving treatment were more likely to report abstinence, were much more likely to report having control over their cannabis use, and reported fewer cannabis-related problems. The participants receiving more intensive CBT reported the most favourable outcome, however the differences between the intensive and brief interventions were not statistically significant.

A randomised multi-site trial of brief treatments for cannabis dependence (Babor, 2004) examined the relative efficacy of two different intervention types. The first was a two-session motivational enhancement therapy program; the second was a nine-session multicomponent therapy that included case-management, motivational enhancement therapy and cognitive behavioural techniques. Both were compared to a delayed treatment control group. Overall, the more intensive intervention produced the greatest and longest overall reduction in cannabis use, however the brief intervention was also more effective than no treatment at all.

Brief interventions can also reduce violent behaviour among young people. High quality evaluations (involving random assignment) of brief interventions delivered to youths identified in emergency department settings have found that participation in a brief intervention has a positive impact on aggression and peer violence (Cheng et al. 2008; Walton et al., 2010). Cheng et al. (2008) evaluated a program that involved experienced mentors delivering a six session problem solving curriculum with youth (including conflict management, role playing and goal setting) in their home and community. Parents received three home visits with a health educator to discuss family needs and facilitate service use and parental monitoring. The control group received community resources and two follow-up calls to facilitate service. The evaluation found that youths receiving the higher number of intervention sessions reported reduced aggression and misdemeanour activity. Walton et al. (2010) evaluated a brief intervention combining motivational interviewing with skills training, a review of goals, tailored feedback, decisional balance exercise, role plays (conflict resolution and anger

management) and referrals. The brief intervention intervention delivered by a therapist was compared with computer delivered brief intervention (interactive animated program) and a brochure with community resources (control). The evaluation concluded that participants receiving a therapist-based intervention were less likely to experience peer violence three months after their emergency department visit. Alcohol consequences were also less common among therapist and computer brief intervention groups at six months follow up.

In an Australian context, police drug diversion is a common form of brief intervention for minor drug offenders who have contact with the criminal justice system. The aim of these interventions is to reduce the impost of large numbers of minor drug offenders on the criminal justice system by diverting them away from the system. A systematic review by Mazerolle et al. (2007) identified 14 studies relating to seven diversion interventions, all in Australia, the majority of which targeted minor cannabis offenders. Drug use outcomes were reported for five of the seven interventions, with three demonstrating reductions in use, one no change, and one mixed results. Reductions in self-reported offending were reported in two studies, a further two studies demonstrated the reduced pressure on police resources, and improved police relations were reported in three studies.

A national evaluation of police drug diversion programs, many of which involved some form of brief intervention, produced very positive results (Payne, Kwiatkowski & Wundersitz, 2008). Across all of the programs evaluated, the majority of people who referred to a police drug diversion program either did not reoffend or, if they did reoffend, had very few subsequent offences in the 12 to 18 months post diversion. Results for Queensland's Police Diversion Program showed that around one-third of the 4,700 people diverted to the program were re-apprehended within 12 months of being diverted, while half of those who continued to offend committed just the one offence. A subsequent evaluation of the Queensland Police Diversion Program by Najman, Morris and Kempnich (2009) involving interviews with 152 participants at the time of diversion and six weeks later observed reductions in self-reported cannabis, ecstasy, amphetamine and tranquiliser use, along with improvements across a number of other health indicators.

Overall, ***brief interventions appear to be a promising option for mild-to-moderate drug users***; however, in most of the applications reviewed here, more intensive interventions still yielded greater outcomes than brief interventions, albeit at higher cost. Further, brief interventions appear more effective for less serious or entrenched substance users, with those showing signs of dependence less likely to benefit from short, motivational interviewing programs (Nathan and Gorman 2015). For these reasons, there is a growing consensus that ***brief interventions should be offered as part of a broader continuum of 'stepped care'*** that allows treatment and health practitioners to respond appropriately to clients who are not engaging or who are identified throughout the brief intervention as having more complex or significant treatment needs (Breslin et al., 1997; Sobell and Sobell 1999; 2000).

Table 1: Brief interventions

Source	Method	Findings
Humeniuk et al., (2012)	Prospective, randomized controlled trial in which participants were either assigned to a 3-month waiting-list control condition or received brief motivational counselling lasting an average of 13.8 minutes for the drug receiving the highest ASSIST score.	Omnibus analyses indicated that those receiving the BI had significantly reduced scores for all measures, compared with control participants. Country-specific analyses showed that, with the exception of the site in the United States, BI participants had significantly lower ASSIST total illicit substance involvement

Table 1: Brief interventions		
Source	Method	Findings
		scores at follow-up compared with the control participants. The sites in India and Brazil demonstrated a very strong brief intervention effect for cannabis scores ($P < 0.005$ for both sites), as did the sites in Australia ($P < 0.005$) and Brazil ($P < 0.01$) for stimulant scores and the Indian site for opioid scores ($P < 0.01$).
Fleming et al., (2000)	Patient and health care costs associated with brief advice were compared with economic benefits associated with changes in health care utilization, legal events, and motor vehicle accidents using 6- and 12-month follow-up data from Project TrEAT (Trial for Early Alcohol Treatment), a randomized controlled clinical trial.	No significant differences between control and intervention subjects were present for baseline alcohol use, age, socioeconomic status, smoking, depression or anxiety, conduct disorders, drug use, crimes, motor vehicle accidents, or health care utilization.
Wutzke et al., (2001)	The effect of the intervention on health outcomes was expressed in terms of number of life years saved by preventing alcohol-related deaths. This was derived by combining estimates of the impact of the programme if it were implemented nationally with available evidence on the health effects of excess alcohol consumption.	The costs associated with screening and brief advice using the current intervention programme range from Aus\$19.14 to Aus\$21.50. The marginal costs per additional life year saved were below Aus\$1873. The robustness of the model used is supported by an extensive sensitivity analysis. In comparison with existing health promotion strategies the costs and effects of the current intervention are highly encouraging.
Bashir et al., (1994)	Patients taking benzodiazepines regularly for at least one year were recruited by their general practitioner and allocated either to a group receiving brief advice during one consultation supplemented by a self-help booklet or to a control group who received routine care. The patients completed the 12-item general health questionnaire and a benzodiazepine withdrawal symptom questionnaire at the outset of the study and at three and six months after this.	Eighteen per cent of patients in the intervention group (9/50) had a reduction in benzodiazepine prescribing recorded in the notes compared with 5% of the 55 patients in the control group ($P < 0.05$). In the intervention group, 63% of patients had a score of two or more on the general health questionnaire at baseline compared with 52% at six months. Of the 20 intervention patients reporting benzodiazepine reduction, 60% had a score of two or more at baseline compared with 40% at six months. Intervention patients had significantly more qualitative, but not quantitative, withdrawal symptoms at six months compared with baseline. Consultation rates were not increased in the intervention group.
Baker et al., (2001)	Subjects were assigned randomly to individually receive a cognitive-behavioural intervention ($n = 32$) of either two or four sessions' duration or a self-help booklet (control condition; $n = 32$).	There was a significant reduction in amphetamine use among the sample as a whole, with inconclusive differences between intervention subgroups. There was a moderate overall intervention effect, with the intervention group reporting over twice the reduction in daily amphetamine use as the control group. Significantly more people in the cognitive-behavioural intervention condition

Table 1: Brief interventions

Source	Method	Findings
		abstained from amphetamine at 6-month follow-up compared to the control condition.
Copeland et al., (2004); Copeland et al., (2001)	A total of 229 participants were assessed and randomly assigned to either a six-session CBT program (6CBT), a single-session CBT intervention (1CBT), or a delayed-treatment control (DTC) group. Participants were assisted in acquiring skills to promote cannabis cessation and maintenance of abstinence. Participants were followed-up a median of 237 days after last attendance.	Participants in the treatment groups reported better treatment outcomes than the DTC group. They were more likely to report abstinence, were significantly less concerned about their control over cannabis use, and reported significantly fewer cannabis-related problems than those in the DTC group. Those in the 6CBT group also reported more significantly reduced levels of cannabis consumption than the DTC group. While the therapist variable had no effect on any outcome, a secondary analysis of the 6CBT and 1CBT groups showed that treatment compliance was significantly associated with decreased dependence and cannabis-related problems.
Stephens et al., (2000)	Adult marijuana users (N = 291) seeking treatment were randomly assigned to an extended 14-session Cognitive-behavioural group treatment (relapse prevention support group; RPSG), a brief 2-session individual treatment using motivational interviewing (individualized assessment and intervention; IAI), or a 4-month delayed treatment control (DTC) condition.	Results indicated that marijuana use, dependence symptoms, and negative consequences were reduced significantly in relation to pre-treatment levels at 1-, 4-, 7-, 13-, and 16-month follow-ups. Participants in the RPSG and IAI treatments showed significantly and substantially greater improvement than DTC participants at the 4-month follow-up. There were no significant differences between RPSG and IAI outcomes at any follow-up. The relative efficacy of brief versus extended interventions for chronic marijuana-using adults is discussed.
O'Donnell et al., (2013)	An overview of systematic reviews and meta-analyses of the effectiveness of brief alcohol intervention in primary healthcare published between 2002 and 2012. Twenty-four systematic reviews met the eligibility criteria (covering a total of 56 randomized controlled trials reported across 80 papers).	Across the included studies, it was consistently reported that brief intervention was effective for addressing hazardous and harmful drinking in primary healthcare, particularly in middle-aged, male drinkers. Evidence gaps included: brief intervention effectiveness in key groups (women, older and younger drinkers, minority ethnic groups, dependent/co-morbid drinkers and those living in transitional and developing countries); and the optimum brief intervention length and frequency to maintain longer-term effectiveness.
Kanner et al., (2013)	Pragmatic cluster randomised controlled trial to assess primary care practices in the north east and south east of England and in London. 3,562 patients aged 18 or more routinely presenting in primary care, of whom 2,991 (84.0%) were eligible to enter the trial: 900 (30.1%) screened positive for hazardous or harmful drinking and 756 (84.0%) received a brief intervention. The sample was	Patient follow-up rates were 83% at six months (n=644) and 79% at 12 months (n=617). At both time points an intention to treat analysis found no significant differences in AUDIT negative status between the three interventions. Compared with the patient information leaflet group, the odds ratio of having a negative AUDIT result for brief advice was 0.85 (95% confidence interval 0.52 to 1.39) and for brief lifestyle counselling was 0.78

Table 1: Brief interventions		
Source	Method	Findings
	<p>predominantly male (62%) and white (92%), and 34% were current smokers.</p> <p>Practices were randomised to three interventions, each of which built on the previous one: a patient information leaflet control group, five minutes of structured brief advice, and 20 minutes of brief lifestyle counselling. Delivery of the patient leaflet and brief advice occurred directly after screening and brief lifestyle counselling in a subsequent consultation.</p>	(0.48 to 1.25). A per protocol analysis confirmed these findings.
Babor (2004)	<p>This study evaluated the efficacy of 2 brief interventions for cannabis-dependent adults. A multisite randomized controlled trial compared cannabis use outcomes across 3 study conditions: (a) 2 sessions of motivational enhancement therapy (MET); (b) 9 sessions of multicomponent therapy that included MET, cognitive-behavioural therapy, and case management; and (c) a delayed treatment control (DTC) condition. Participants were 450 adult marijuana smokers with a Diagnostic and Statistical Manual of Mental Disorders (4th ed.; American Psychiatric Association, 1994) diagnosis of cannabis dependence. Assessments were conducted at baseline, and at 4, 9, and 15 months post randomization.</p>	<p>The 9-session treatment reduced marijuana smoking and associated consequences significantly more than the 2-session treatment, which also reduced marijuana use relative to the DTC condition. Most differences between treatments were maintained over the follow-up period. Discussion focuses on the relative efficacy of these brief treatments and the clinical significance of the observed changes in marijuana use.</p>
Source: Adapted from abstracts and article summaries		

Legally coerced treatment can perform equally as well

First and foremost, any review of what works in the drug treatment of criminal justice populations requires acknowledgement that those who are legally coerced to participate in treatment often perform as well as those who enter treatment voluntarily. There is a now large body of research which confirms that **legally coerced clients do not underperform** others who access treatment from outside the criminal justice sector (Kelly, Finney, & Moos, 2005; McSweeney, Stevens, Hunt, & Turnbull, 2007; Perron & Bright, 2008; Young & Belenko, 2002). Whereas during the early proliferation of drug courts there was concern that criminally mandated clients would monopolise to lesser effect the scarce resources of the health and treatment sectors, such fears have not been realised. To the contrary, the evidence supporting equality for legally-coerced clients is such that allocating treatment places and resources to criminal-justice led interventions is a worthwhile policy objective.

Anglin, Prendergast & Farabee (1998) reviewed 11 published studies involving the relationship between various levels of legal pressure and substance abuse treatment. Five studies found a positive relationship between criminal justice referral and treatment outcomes, four reported no difference, and two studies reported a negative relationship. They argued that the varied results

were due to inconsistent terminology in how legal coercion is defined, the important role of internal motivation, and fidelity in the implementation of different programs. A review by Hall (1997) of US studies found some support for legally coerced drug treatment, provided that program was well resourced, carefully implemented and that the performance of clients is monitored to ensure that they receive a humane and effective alternative to imprisonment.

Evaluations of the Drug Abuse Reporting Program (DARP) and the Treatment Outcome Prospective Study (TOPS) concluded that drug-dependent clients who entered a TC and drug-free out-patient counselling under legal coercion, which meant under probation or parole, did equally as well as those who were participating voluntarily (Hubbard et al., 1989; Simpson, 1981). Similarly, De Leon (1988) showed that outcomes for participants entering TC under some form of legal coercion spent as long in treatment as those who did not enter treatment under legal coercion

Young and Belenko (2002) conducted a study in which three groups of long-term residential treatment clients were compared. From the same treatment facility and having similar demographic characteristics, the 330 offenders differed with respect to the mechanism through which they were referred to treatment. One group of clients was referred through a highly-structured drug-court style program, while the remaining two groups were referred via probation or parole. Comparative analysis showed that clients in each of the three groups differed substantially in their perceptions of legal pressure, while treatment retention data confirmed that the odds of staying in treatment for six months or more was significantly higher for offenders who reported the highest levels of legal pressure.

Finally, in a study by Perron and Bright (2008) the influence of legal coercion on treatment outcomes was compared across different treatment modalities. These included short-term residential treatment, long-term residential treatment and outpatient treatment. In all three modalities, legal coercion was linked to a reduced risk of treatment termination, with the greatest effect being for short-term residential treatment clients, followed by long-term residential treatment and then outpatient treatment. In their conclusion the authors note that, although seemingly effective across each of the major modalities, the use of legal coercion must be carefully considered when treatment modalities are being selected for criminal justice drug treatment clients.

It's important to distinguish between compulsory drug treatment and coerced drug treatment, the latter including drug courts. Compulsory treatment refers to drug treatment program in which clients are mandated to enrol. It typically involves forced inpatient treatment, but can also involve outpatient treatment. Coerced treatment is different in that it provides individuals with a choice to avoid treatment (such as, in the case of drug courts, not consenting to participate in the program). A recent review of compulsory drug treatment by Werb et al. (2016) found nine studies that examined the impact of compulsory treatment. Results were mixed, with two studies showing a negative impact on recidivism, while another two showed a positive impact on recidivism and drug use.

The remaining studies included in that review showed no effect. For example, in 2005, Kelly and colleagues (2005) conducted a prospective study of 2,095 drug treatment clients, comparing treatment outcomes for three groups: those mandated to treatment, those not mandated but still actively involved in the criminal justice system, and those who were neither mandated nor currently involved in any criminal justice proceedings. Overall, a comprehensive battery of screening and

assessment items showed that mandated clients were not less satisfied with the treatment setting or environment and they experienced equivalent outcomes for coping and self-efficacy. At treatment discharge mandated clients were equally likely to be involved in 12-step programs, they had higher rates of abstinence, and they were more likely to be assessed as in remission – outcomes which were not attributable to the mandated clients’ more favourable clinical profile at intake. However, the therapeutic gains observed at 12 months did not persist at five years after treatment.

Table 2: Legally coerced treatment		
Source	Method	Findings
Anglin, Longshore and Turner (1999)	This article reviews the evolution of the Treatment Alternatives to Street Crime (TASC) approach – a US based offender management tool implemented since the early 1970s. Specifically, the overviews two experimental and three quasi-experimental evaluations of TASC.	The outcomes of TASC were favourable across multiple sites, with more favourable outcomes identified for the more intensive interventions. The consistency of findings across sites is interpreted as supportive of the use of sanctions to incentivise treatment engagement and retention.
Young and Belenko (2002)	This study compared three groups of clients (N = 330) mandated to the same long-term residential treatment facilities. Study participants were referred from two highly structured programs or from more conventional legal sources, such as probation or parole agents.	Analyses showed that these clients varied substantially in their perceptions of legal pressure, and these perceptions generally corresponded to the programs' different coercive policies and practices. Retention analyses confirmed that the odds of staying in treatment for six months or more was nearly three times greater for clients in the most coercive program compared to clients in the third group. Results support the use of structured protocols for informing clients about legal contingencies of participation and how that participation will be monitored, and developing the capacity to enforce threatened consequences for failure.
Perron and Bright (2008)	The influence of legal coercion on retention in substance abuse treatment was examined using a national survey of programs in the public sector of care and three different treatment modalities including short-term residential (N = 756), long-term residential (N = 757), and outpatient treatment (N = 1, 181).	Legal coercion was found to reduce the risk of dropout across all three treatment modalities. The greatest effect was among persons in short-term residential treatment. The smallest effect was observed in outpatient treatment. This study shows that legal coercion significantly reduces the risk of dropout in substance abuse treatment. However, the differential effects across treatment conditions must be carefully considered when using coercion to involve individuals in treatment.
Kelly et al., (2005)	A five-year longitudinal study compared treatment outcomes among American veterans across 15 Veterans Affairs Medical Centers in the United States (n= 2,095) who either had justice system involvement and were voluntarily enrolled in treatment (JSI); were mandated by the justice system to receive treatment (JSI-M); or had no involvement in the justice system and were enrolled in treatment (No-JSI). The treatment provided was an abstinence-based, 12-step program.	After controlling for differences in risk profiles at baseline, participants in the JSI-M group had the highest reported level of abstinence from illicit drugs (61.0%) after one year, significantly higher than the JSI or No-JSI groups (48.1% and 43.8%, respectively). However, after five years no significant differences in the proportion of those in remission from drug use were detected across groups (JSI-M = 45.4%; JSI = 49.8%; No-JSI = 46.4%). The JSI group reported a significantly higher proportion of individuals

Table 2: Legally coerced treatment		
Source	Method	Findings
	Kelly et al. compared one- and five-year substance use and criminal recidivism outcomes among participants controlling for differences in socio-demographic and dependence-related variables.	rearrested (32.3%) compared with the JSI-M or No-JSI groups (20.6% and 18.3%, respectively) after one year; however, there were no significant differences in the proportion of participants rearrested after five years. Treatment perceptions and satisfaction were also comparable across groups.
Source: Adapted from abstracts and article summaries		

Treatment and supervision intensity should be guided by the risk and need principles

Correctional practitioners, policy makers and researchers have long been concerned with the undoubtedly difficult task of identifying “what works” in reducing reoffending. A cornerstone of this literature, developed over more than 50 years of research and practice, is that high risk offenders are better suited to more intensive and structured interventions. Pioneering this philosophy, Andrews and Bonta (1998) dedicated their efforts in the *Psychology of Criminal Conduct* to a comprehensive examination and review of the literature, concluding that correctional agencies would be more effective if high-risk offenders could be more accurately identified and targeted with appropriate multi-dimensional desistence-based interventions.

Emerging from this paradigm is the treatment and intervention framework now commonly known as *Risk-Need-Responsivity* (RNR) – a theory founded in behavioral psychology and influenced heavily by the treatment classification literature of the 1960s and 1970s (Sechrest, Palmer). In principle, RNR focuses on the use of cognitive techniques and treatments for managing ‘criminogenic’ risk factors, defined broadly as individual, situational or environmental characteristics for which there is both empirical and statistical evidence of an association with future offending. The three key principles of RNR are:

- The risk principle – that the level of program intensity be matched to offender risk level (defined as the risk of reoffending, absent intervention or treatment), and that intensive levels of intervention and treatment be reserved for offenders with the highest level of risk;
- The need principle – that criminogenic needs (ie. those functionally related to persistence in offending) require commensurate and concurrent redress;
- The responsivity principle – that the style and modes of intervention be matched or tailored to each individual offender’s learning style and abilities and be responsive to individual strengths and levels of motivation (see Andrews, Bonta and Wormith 2011).

In the tradition of RNR, the most effective and cost-efficient interventions for drug using and drug dependent criminal justice populations are likely to be those where supervision intensity is tailored to the prognostic risk of reoffending and where drug treatment types and intensities are chosen cognisant of drug use as a key criminogenic need (Andrews and Bonta 2010; Taxman and Marlowe 2006). Therefore, the intensity of drug-treatment, the provision of allied treatment, and the intensity of supervision by the criminal justice system **should be guided by the risk and need principles**. Risk, in this case, refers to those individual offender characteristics which are nominally

linked to less favourable recidivism outcomes. According to a review by Marlowe and colleagues (2003), these include age (younger), gender (male), onset of offending and substance use (younger), prior convictions, prior history of unsuccessful treatment, a diagnosis of antisocial personality disorder, and regular contact with other drug-using or anti-social peers. Conversely, criminogenic need refers to clinical disorders and functional impairments which increase the risk of future offending. Drug use is among the most common of criminogenic needs, together with mental illness, unemployment and lack of basic life-skills (Marlowe 2012). In their summary, Andrews and Bonta (2010) describe the “central eight” – eight domains through which the risk of reoffending can be energised if appropriate interventions are not utilised. These include:

1. Criminal History (*static*)
2. Antisocial Personality Pattern (*static/dynamic*)
3. Pro-criminal Attitudes (*dynamic*)
4. Social Supports for Crime (*dynamic*)
5. Substance Abuse (*dynamic*)
6. School/Work Failure (*dynamic*)
7. Family or Relationship Problems (*dynamic*)
8. Lack of Prosocial Activities (*dynamic*)

Ultimately, prognostic risk and criminogenic need should be used to determine the intensity of treatment and supervision, as well as the nature and type of response required for non-compliance. Importantly, **low-risk offenders should not be over-treated or over-supervised**. Not only is it potentially unethical and net-widening, but the over-treating of offenders who are low-risk and low-need has the potential to exacerbate drug use and worsen criminal justice outcomes (Lowenkamp and Latessa 2004; McCord 2003; Andrews & Dowden, 1999; Bonta, Wallace-Capretta, & Rooney, 2000; Lowenkamp & Latessa, 2002). Specifically, the research evidence indicates that high-intensity interventions for low-risk offenders can, in fact, interfere with an offender’s existing strengths and turn moderate or mild criminogenic factors into significant criminogenic needs. By their very design, intensive interventions have the potential to:

- remove offenders from prosocial and productive activities such as work and school (Lowenkamp & Latessa, 2004);
- replace potentially low-risk peers with high-risk peers; and
- deepen criminal justice involvement, having the potential for negative labeling and negative effects on self-concept.

Table 3: Low-risk offenders		
Source	Method	Findings
Baldwin et al., (1991)	Referrals for young males with drink-related offending behaviours were obtained from local courts. Following an assessment interview, young offenders completed either a talk-based	Both the talk-based and behavioural interventions yielded significant reductions in criminal offending rates. The study is limited

Table 3: Low-risk offenders		
Source	Method	Findings
	Alcohol Education Course (AEC) or a behavioural AEC. At follow-up interviews, differences in dependent variables of offending and drinking behaviour were examined.	by the absence of a 'non-treatment' comparison group.
Source: Adapted from abstracts and article summaries		

Conversely, meta-analyses investigating the risk principle applied to juvenile and adult offenders in correctional programs or school-aged youth in school-based intervention programs have found that adhering to the risk principle produces effect sizes between two and six times as great (Lowenkamp & Latessa, 2004). Accordingly, the level of supervision should be highest for offenders with the highest prognostic risk (Lowenkamp et al., 2006) while the intensity of the treatment services should be highest for offenders assessed as having high-criminogenic need (Smith et al., 2009). For drug dependent offenders, this will almost invariably require some form of intensive drug treatment coupled with interventions targeting other concurrent criminogenic needs. To manage such a comprehensive and individualised system of intervention and treatment requires **systems integration and a continuum of care** as offenders move through different phases of the criminal justice system (Butzin et al. 2002; Taxman and Bouffard, 2000).

Triaging by risk and need – a complex task

The fundamentals underlying the RNR framework have strong empirical support, however, the actual practice of triaging offenders into different treatment and supervision intensities is likely to be a challenging task. Marlowe, in his 2012 reflection on drug courts, sets out a case for the use of the risk and need principles when developing alternative options for the provision of drug treatment within the criminal justice system. Although framed as 'alternative tracks within a drug court', the framework is nevertheless useful for understanding how a continuum of criminal justice services could be designed. In it, Marlowe (2012) dichotomises prognostic risk and criminogenic need into categories of 'high' and 'low' which, when cross-classified, produces four intervention quadrants described as the 'risk and need matrix'. Each of the four quadrants then attracts a different intensity of supervision and treatment, coupled with different responses to non-compliance.

Figure 1: Alternative tracks within an adult drug court

		Prognostic risk	
		High	Low
Criminogenic need	High (substance dependence)	Offenders require all the services typically provided under a drug court program	Offenders require drug treatment and cognitive behavioural interventions, but need only be required to appear before the court for matters of non-compliance (treatment emphasis)

	Low (substance abuse)	Offenders require the same level of supervision and compliance monitoring as would be provided under a drug court; however, drug treatment should be replaced with behavioural interventions that target other criminogenic needs and criminal thinking (accountability emphasis)	Offenders do not require drug treatment or cognitive behavioural interventions, and should only appear before the court for matters of non-compliance (diversion emphasis)
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Source: Marlowe, 2012

Although a useful framework for conceptualising a whole-of-system approach to drug related offending, Marlowe (2012) nevertheless concedes that triaging offenders into four discrete ‘tracks’ is a complex process because:

“[n]o assessment tool is perfectly reliable and valid. There will often be an appreciable number of false positives and false negatives..., meaning that assessment tools may overestimate or underestimate the level of risk and need in some cases. In addition, many drug-involved offenders may be poor informants and the information they provide may be erroneous, exaggerated or minimized”

In addition to this, there are a number of other practical and conceptual issues which makes the triaging of offenders into discrete categories a challenging prospect. First, the proportionality principle demands that the criminal justice system respond equitably and fairly to those matters presenting for adjudication. The degree to which supervision and treatment can (or should) be enforced by a court will, therefore, depend considerably on the severity of the presenting offences and the nature of ones prior criminal history. In many cases, the initial phase of the triaging process occurs by default, with supervision intensities determined by proxy, based on some vague notion of proportional retribution. Consequently, the criminal justice system relies heavily on the severity or quantity of the presenting offences to implement a series of graduated sanctions and supervision intensities. Unfortunately, however, empirical criminological research (Makkai and Payne 2003) has shown that an offender’s current offence/s are relatively poor indicators of prior offending and prospective risk, especially among early career criminals who are likely to be the most costly in the longer term. There is, therefore, a sizable number of offenders who are *qualitatively* high-risk of reoffending but who, at the time of presenting to the court, may nevertheless only be eligible for interventions that carry supervision intensities consistent with a low-risk rating (Payne and Piquero 2016).

In addition, the drug-crime and criminal careers literature suggests that problematic drug use, including drug dependency in many cases, typically precedes the onset of serious regular offending (Makkai and Payne 2003). Consequently, there is likely to be a period of time for many offenders where criminogenic needs are high, but where the assessable risk of reoffending (based on official and static factors) is lower than would be otherwise indicated from self-reported histories. For this period, and in the interests of proportionality, the criminal justice system is likely to be significantly constrained in its ability to apply supervision and treatment intensities that exceed the justifiable limits of the presenting offences/ criminal history.

Second, actuarial risk assessment tools are often calibrated to minimise the rate of false negative results. In other words, screening and assessment tools are often constructed with the view to limiting the number of high-risk offenders incorrectly classified as low-risk. Doing so requires a finite balance between sensitivity and specificity, though often in high-stakes situations the procedure is calibrated such that the incorrect classification of low-risk offenders is preferred over the incorrect classification of high-risk offenders. As a consequence, actuarial systems are often designed to prioritise the identification of high-risk offenders and the policy and program discussion about risk assessment is often limited to a high-risk / low-risk dichotomy. Those not assessed as 'high-risk' or 'high-priority for intervention' are subsequently aggregated together, often without any meaningful understanding or appreciation of the underlying heterogeneity. This is, in part, because scarce criminal justice resources limit the capacity to offer appropriate levels of supervision and treatment to those not deemed to be a high priority according to the risk principle. Unfortunately, therefore, a large proportion of drug dependent or drug using criminal offenders may not receive appropriate levels of treatment until such time as their official criminal careers demand a commensurate level of supervision.

Motivation and readiness to change – a vexed issue

Whichever intervention philosophy is ultimately selected, the issue of offender motivation and responsivity must be addressed. Several studies have explored the role of motivation in treatment and, specifically, the impact that motivation has on treatment retention and outcomes. An analysis of motivation among 500 drug court participants found that women, particularly women with mental health problems, exhibited the highest levels of motivation (Webster et al., 2006). This highlights the need to consider gender differences in planning interventions. The Treatment Needs/Motivation scales found within the TCU Criminal Justice Client Evaluation of Self and Treatment (CJ CEST) is one example of a freely available, evidence-based tool that can be used effectively to assess an offender's readiness for the drug court (Garner, Knight, Flynn, Morey & Simpson, in press).

Clients who are internally motivated for treatment are the ones who are more likely to engage in the treatment process (e.g., attend sessions, develop rapport, and report satisfaction; Simpson & Joe, 2004). Cosden et al. (2006) found that motivation for treatment—based on the client's reported need for treatment and acknowledgement of problem severity—was associated with the severity of drug use, and that client motivation (along with jail time) predicted program completion for drug court but not drug treatment court. Drug treatment clients who do not recognize that they have a drug use problem, do not want help, or simply believe they are not ready for treatment may require motivational enhancement services (e.g., Motivational Interviewing) before being mainstreamed into the drug court process.

However, the relationship between treatment motivation, program completion and recidivism is not as straightforward as might be expected. Cosden et al. (2006) also found that motivation was not a significant predictor of reoffending; rather, recidivism was predicted by program completion and problem severity.

Box 2: Queensland Stakeholder and Consultation Feedback (Motivation)

- Motivation to change is an essential ingredient to an individual's success on an intensive drug treatment order;

- Offenders who are motivated solely by the desire to avoid harsh penalties (imprisonment) will be the most difficult to manage in a community corrections and intensive treatment context. Conversely, those offenders motivated by the desire to change their life or improve their life circumstances will have more favourable outcomes.
- However, for programs that target high-risk, high-need offenders, it may be unrealistic to expect anything other than purely instrumental motivations at the time of referral and entry.
- That it is the role of case-workers (wherever situated) to help transition clients from instrumental (and largely external) motivators to internal and treatment focused motivators.
- That motivational interviewing, cognitive behavioural therapies and close case management programs are three key strategies for aiding motivational and attitudinal change.
- That motivational change can be difficult to achieve, if not a protracted process for high-risk and high-needs offenders.

Legal pressures play an important role as external motivators for offenders to enter and stay in treatment (Knight, Hiller, Broome, & Simpson, 2000). While it may appear desirable to limit intensive treatment interventions to those already internally motivated for change, the reality is that moderate and high-intensity justice interventions are required only because there exists a population of high-risk and high-need offenders who have yet to achieve this of their own volition. Put simply, more intensive interventions delivered in a criminal justice settings must operate from the position that most clients are not, at the time of referral, motivated to change their lifestyle or address their criminogenic needs. Those who fit this category may well perform better overall, but they are likely to be a small minority of the overall target population. Thus, the goal these interventions ought not be to target those already motivated for change, but rather, it should be in designing and implementing evidence-based strategies that are proven to facilitate the transitioning of unmotivated offenders into a position of contemplation and action.

Legal coercion has been found to be associated with greater readiness to change (Gregoire and Burke 2004). People entering as a consequence of legal coercion more likely to have engaged in recovery-oriented behaviour in the month before admission. A study by Young (2002) found that providing information to clients about conditions and contingencies of treatment participation and convincing them they will be enforced are effective coercive approaches. There was less support for other forms of coercion—tight monitoring and use of severe penalties for failure (Young 2002). Conversely, Young & Belenko (2002) found that the odds of staying in treatment were higher for those facing more severe penalties (Young and Belenko 2002).

To the extent that motivational change is acknowledged as a core objective of court-based intervention program, then all other aspects of the proposed model should be assessed and considered in light of their contribution and capacity to maintain this objective. This includes:

- 1) The nature and composition of the intervention team – are the right agencies represented;
- 2) The roles and responsibilities of key personnel;
- 3) The nature of key program components and requirements (such as court appearances, compliance management and monitoring systems, the use of rewards and sanctions and graduated phasing);
- 4) The selection of treatment services.

Importantly, not only should treatment interventions be assessed for their ability to facilitate motivational change, but the practices and procedures of the intervention model must be assessed for their reverse potential – that is, the potential to diminish and demotivate clients.

The concept of motivation is different from the concepts of risk and responsivity — matching offenders to services based on their risk factors and delivery of services in a manner consistent with their learning styles. This study has provided preliminary empirical evidence that treatment outcomes can be improved if high-risk offenders are targeted for treatment services, regardless of their level of intrinsic motivation. It also implies that a cohesive treatment and supervision experience may impact the motivation of the offender (Thanner and Taxman).

Assessment as the cornerstone of success

As the cornerstone of any intervention, both prognostic risk and criminogenic needs should be determined using **validated and standardised screening and assessment tools**. Consistent with the correctional literature, drug treatment programs offered in concert with criminal justice orders are more effective when combined with appropriate levels of supervision and programmatic intensity. Ultimately, determining the optimal level of supervision and providing a seamless system of service provision requires a reliable assessment of risk (Thanner and Taxman 2003; Lowenkamp et al., 2006; Andrews and Bonta 1996; Taxman and Thanner 2006; Taxman and Marlowe 2006). Similarly, criminal justice interventions are more effective when the level of drug treatment is suitably matched to the severity of the drug dependency. Service-level matching requires validated assessment and screening tools which limit over or under-treating individual offenders (CSAT 2005), especially as the number and type of available treatment options increase (Carroll 2000). According to the American Society of Addiction Medicine (ASAM 2001), drug use and dependency assessment should include: aspects of the drug dependency and its severity, psychiatric problems and severity, medical conditions, substance withdrawal potential, legal pressures, family/social relationships, motivational factors, recovery and support environment, treatment history and behaviour, and cognitive capability.

Screening and assessment

Screening and assessment procedures are neither equivalent nor interchangeable processes. Rather, they exist as complementary systems designed to optimise efficiency in the allocation of scarce criminal justice and health resources. Screening, for example, is typically the process by which an offender's eligibility and suitability for treatment is first determined. Legal eligibility is often assessed on a set of fixed criminal and circumstantial criteria not requiring further assessment, whereas program suitability is assessed using brief probabilistic instruments which are indicative of treatment need requiring further assessment. Screening, therefore, occurs soon after arrest/referral, and focuses only on those criteria required for eligibility and program placement determinations.

Box 3: Screening as defined in the Victorian Drug Court

“...a preliminary process in determining an offender's suitability to participate in a Drug Treatment Order. Suitability is determined against demographic, clinical and justice-related criteria:

Demographic: determines whether the participant is living in or has a significant connection to an area within the Dandenong or specified catchment area.

Justice: considers an offender's eligibility for the program based on prior and current offences.

Clinical: confirms that a participant's drug or alcohol abuse is a significant causal factor in the current and prior offences and also identifies any immediate intervention needs." (Magistrates Court of Victoria)

In practice, screening procedures nominally involve two separate components. The first is a review of legal and demographic eligibility, focusing on those current offence and criminal history specific factors which must be satisfied before program placement can be approved. Many criminal justice based interventions exist within a legal framework for which there are qualifying and disqualifying criteria and it is these elements which are of foremost concern during the legal eligibility screen.

The second screening process seeks to determine the clinical appropriateness of the offender for admission to the relevant intervention. In principle, the selected clinical criteria should be limited only to those factors considered important to the determination of an offender's suitability and eligibility, and may include: (1) drug use severity; (2) major mental health problems; (3) motivation for treatment; and (4) criminal thinking patterns. Importantly, clinical screening tools should be selected from a range of standardised instruments, these having been shown to be more reliable and valid than professional judgement alone for predicting success in correctional supervision (Andrews et al., 2006; Miller & Shutt, 2001; Wormith & Goldstone, 1984). In the drug court context specifically, the meta-evaluation conducted by Shaffer (2010) found that the use of standardised screening instruments was significantly linked to more favourable individual and program level outcomes. Specifically, drug courts in which standardised instruments are used typically outperform those where such instruments are not used.

Assessment is differentiated from screening as a more comprehensive and thorough process used to determine an offender's suitability for specific types of treatment and levels of service intensity. In this case, assessment routinely occurs *after* an offender is deemed eligible. In some programs, offenders may be granted a position prior to the completion of a more comprehensive assessment, while in others the matter may be adjourned for such a period of time that allows for a detailed assessment to be conducted. Assessment in this context is intended to provide an in-depth dynamic picture of the client's prognostic risks and criminogenic needs, leading to the identification of appropriate levels and types of interventions. Again, validated and standardised assessment instruments have been shown to be more effective than professional judgement in the matching of offenders to appropriate levels and types of interventions.

Box 4: Assessment procedures of the Victorian Drug Court

In Victoria, once an offender is identified as suitable, the matter is adjourned for a period of three weeks so as to facilitate the in-depth assessment. For clients remanded in custody, assessments are typically conducted via video link. For clients on bail, the assessment may be undertaken immediately or rescheduled at some time before the matter is to be reheard. The assessment process comprises two core assessments – a case management assessment and a clinical assessment. The case management assessment considers:

- legal history including previous convictions and penalties, imprisonment history and comments on current offences before the Court;
- family and social history, including cultural background and support networks

- education and employment status;
- housing and accommodation needs, including the need for referral to the Drug Court Homelessness Assistance Program;
- general information regarding the offender's background, current circumstances and presentation.

The clinical assessment considers:

- drug and alcohol use history;
- behavioural indicators;
- treatment history;
- health status;
- motivation to change.

Gender sensitive screening

The broader drug treatment literature has frequently identified less favorable outcomes for women in both coerced and voluntary treatment contexts. One method of redress for this issue is to ensure that the gender specific clinical needs of female offenders are adequately assessed. For example, many female offenders have a history of physical and sexual abuse, and have relationships characterised by unhealthy dependencies and poor communication skills (see American Correctional Association, 1990; Lord, 1995). As detailed later in this report, mental health problems are identified disproportionately more often among female offenders, particularly post-traumatic stress disorder (Peters et al., 1997; Teplin et al., 1996).

Unfortunately, given the over-representation of young males in the criminal justice system, many of the most commonly used screening instruments have been developed and validated with male only populations. Use of these tools for female offenders is questionable if no specific or appropriate recognition is made of gender-specific risks and needs. Women, for example, may experience qualitatively different barriers to treatment, including responsibility for the care of minor children. Further, women are more likely to experience significant housing and relationship issues which, if unattended, may significantly interfere with treatment retention and progress and later leading to higher termination rates and post-program reoffending and drug use rates. Without gender-sensitive screening and assessment tools, individualized treatment strategies may prove relatively ineffective.

In a comprehensive review of drug court screening and assessment practices, Peters and Peyton (1998) argue that gender sensitive drug court screening processes should:

- Ensure adequate identification of barriers to treatment participation, including responsibility for the care and support of minor children and other child custody issues.
- Ensure adequate gender-sensitive assessment of relapse triggers is undertaken.
- Consider carefully the circumstances related to housing and relationships, especially to ensure that women are safe in their current living situation and that there are no pressures from significant others to continue drug or alcohol use.
- Where the risk of domestic violence is identified, appropriate steps should be taken by the court to develop a safety plan that prevents victimization

- Identify any current or prior mental health diagnoses and assess the need for medical intervention (for anxiety, depression, etc).

Screening for Mental Health

Due to the high rates of mental health disorders among criminal justice populations, mental health symptoms and status should be routinely examined as part of a comprehensive screening and assessment procedure. Importantly, drug treatment interventions should not restrict admission solely based on mental health symptoms or a history of mental health treatment, but should instead consider the degree to which mental health or other disorders can lead to functional impairment that inhibits effective program participation. According to Peters and Peyton (1998) key mental health considerations should include:

- Paranoia, hallucinations, delusions, severe depression, or mania (i.e., hyperactivity and agitation) that occurs frequently, is obvious to others, is disruptive to group activities, or otherwise prevents constructive interaction with drug court staff or participants;
- Lack of stabilisation on psychotropic medication, or failure to follow medication regimes; and
- Suicidal thoughts or other behaviour.

In addition to the selection of appropriate tools, agencies responsible for the coordination of treatment services should evaluate those services and their capacity to work with participants with mental health problems. This includes program resources, the extent and availability of an allied treatment service, and the levels of functioning needed to participate effectively. Further, those undertaking the screening and assessment of mental health must be trained in the application of the relevant instruments, while the drug treatment and case management practitioners should be educated on the nature and course of mental health disorders, including the identification of signs and symptoms requiring referral. Among those items to be assessed, Peters and Peyton suggest a focus on:

- Acute mental health symptoms (e.g., depression, hallucinations, delusions)
- Suicidal thoughts and behaviour
- Other observable mental health symptoms
- Age at which mental health symptoms began
- Prior involvement in mental health treatment, and use of psychotropic medication
- Cognitive impairment
- Past or recent trauma such as sexual/ physical abuse
- Family history of mental illness

Social factors (e.g., primary responsibility for children, living with an abusive or substance-involved partner, sole economic provider responsibilities) that may present obstacles for treatment participation.

Screening for motivation and readiness for treatment

Drug court screening and assessment should address an individual's motivation and readiness for treatment. Motivation may be affected by perceived sanctions and incentives, and may increase when continued substance abuse threatens current housing, involvement in mental health treatment, vocational rehabilitation, family (including loss of children), or marriage, or may lead to

incarceration. Apparent lack of motivation should not, as a singular factor, be used to disqualify candidates from admission to the drug court program or to treatment, unless the candidate refuses to participate.

Research has shown that treatment outcomes for persons coerced or court-ordered to treatment are as good as or better than for participants in voluntary treatment (DeLeon, 1988; Hubbard et al., 1989; Leukefeld and Tims, 1988; Platt et al., 1988). Although some offenders may initially agree to participate in treatment to reduce negative consequences, motivation for treatment is expected to become internalized over time. Individuals often cycle through the following “stages of change” during the treatment and recovery process (Prochaska et al., 1992):

- Precontemplation (unawareness of problems),
- Contemplation (awareness of problems),
- Preparation (reached a decision point),
- Action (actively changing behaviors), and
- Maintenance (practices ongoing preventive behaviors).

Individuals in the earliest stages of change have little awareness of substance abuse (or other) problems, and no intentions of changing their behavior. Awareness of problems increases in later stages, as the individual begins to consider the goal of abstinence. Due to the chronic relapsing nature of substance abuse problems, movement through stages of change is not a linear process.

For individuals in early stages of change, placement in treatment that is too advanced, and that does not address a participant’s ambivalence regarding behavior change, may lead to drop out from treatment. For individuals in later stages of change, placement in services that focus primarily on early recovery issues may also lead to drop out from treatment. Assessment of stages of change is useful in treatment planning, and in matching the individual to different types of treatment.

Box 5: Queensland Stakeholder and Consultation Feedback (Leverage)

- High quality, evidence based screening tools are required to identify eligibility in both the risk and need domains.
- Assessment and screening are different and serve different purposes.
- Where multiple different orders/options exist within a single location, there is a preference for a single coordinates screening/assessment and triaging system.
- Can screening and assessment limited to a small number of locations, with the use of technology and video link capabilities for other locations where dedicated teams are not feasible?

Box 6: NADCP’s Key Practice Principles

- Eligibility screening is based on established written criteria. Criminal justice officials or others are designated to screen cases and identify potential drug court participants.
- As part of the screening and assessment process, eligible participants are promptly advised about program requirements and the relative merits of participating.
- Only select instruments that will actually be used in the decision making process.

- Choose screening tools that can be easily administered and scored, as well as provide clinically meaningful results based on comparisons with normative data.
- Select instruments that have good overall classification accuracy and psychometric properties, particularly reliability and validity.
- Trained professionals screen drug court-eligible individuals for AOD problems and suitability for treatment. Ensure staff are appropriately qualified and trained for administering the selected instruments.

Screening for Substance Use

The effectiveness of substance abuse assessment and screening instruments may vary according to the criminal justice setting and the goals of gathering information in that setting. For example, Peters and colleagues (2000) compared the use and diagnostic results of eight different substance abuse screening instruments among a sample of male prisoners. These included:

- Alcohol Dependence Scale (ADS)
- Addiction Severity Index (ASI)-Alcohol Use subscale (ASI-Alcohol)
- ASI-Drug Use subscale (ASI-Drug)
- Drug Abuse Screening Test (DAST-20)
- Michigan Alcoholism Screening Test (MAST short version)
- Substance Abuse Subtle Screening Inventory-2 (SASSI-2)
- Simple Screening Instrument for Substance Abuse (SSI-SA)
- TCU Drug Screen (TCUDS) (Knight et al. 2002)

In terms of test-retest reliability (ie the extent to which two separate administrations of the same instrument with the same people produce the same result), all eight instruments were assessed as adequate. However, the instruments varied widely with respect to their *validity* (ie the extent to which they each accurately identified the true presence of a substance use disorder) and yielded different specificity and sensitivities in various sub-populations. In their analysis of the results, Peters et al (2000) suggest that instruments with higher validity and fewer false positive results (the TCU Drug Screen, for example) should be preferred for interventions with limited service capacity. Conversely, for programs seeking to maximize participation in relatively minor interventions, or where more thorough and detailed assessment procedures follow initial screening, then tools with lower specificity and sensitivity should be preferred.

In any case, it is important that screening processes adequately identify key issues that need to be addressed in treatment. Content domains may be singular or plural, including substance use, criminal, physical health, mental health, and special considerations.

According to Peters and Peyton (1998) in their review of drug court screening and assessment practices, practitioners should give consideration to the following issues:

- Signs of acute drug or alcohol intoxication
- Acute signs of withdrawal from drugs or alcohol
- Drug tolerance effects
- Results of recent drug testing
- Self-reported substance abuse
 - Age and pattern of first substance use
 - History of use

- Current pattern of use (e.g., quantity, frequency, method of use)
- “Drug(s) of choice” (including alcohol)
- Motivation for using
- Negative consequences associated with substance use. For women, this may include changes in physical appearance.
- Prior involvement in treatment
- Family history of substance abuse (include family of origin as well as current family)
- Other observable signs and symptoms of substance abuse (e.g., needle marks/ injection sites, impaired motor skills)

Using treatments that work to reduce both drug use and offending

Research and evaluation analyses have consistently shown that the most effective interventions are those that **employ therapeutic community, cognitive-behavioural and standardised behavioural techniques**. Several large scale reviews (Lipton et al 2002; Carroll 1999; Irvin et al. 1999; Dutra et al., 2008; Magill & Ray, 2009) in addition to several randomised control trials (Siqueland and Crist-Christof 1999) have consistently demonstrated more favourable outcomes from treatment orientations that engage clients in cognitive-behavioural tasks and/or standardised behavioural modification techniques (see also Andrews et al 1990; Sherman et al 1997; Lowenkamp & Latessa 2004; Mackenzie 2000; McMurrin and Prestley 2004; Budney, Moore, Rocha, & Higgins, 2006; Carroll et al., 2006; Easton et al., 2007; Kadden, Litt, Kebela-Cormier, & Petry, 2007; Rawson et al., 2006). Therapeutic communities, especially in custodial environments and when coupled with cognitive-behavioural treatments (Pelissier et al., 2001; Hall et al 2004; Mitchell, MacKenzie & Wilson, 2012) and appropriate aftercare (Inciardi, Martin, & Butzin, 2004; Prendergast, Hall, Wexler, Melnick, & Cao, 2004), have also proven effective for reducing both drug use and reoffending (Lipton et al., 2002a; Wexler 1997; cf. Zhang et al., 2009; Wexler, De Leon, Thomas, Kressell, & Peters, 1999; Wexler, Falkin, & Lipton, 1990; Wexler, Melnick, Lowe, & Peters, 1999; Inciardi, Martin, Butzin, Hooper, & Harrison, 1997; Martin, Butzin, & Inciardi, 1995; Martin, Butzin, Saum, & Inciardi, 1999; Hiller, Knight, & Simpson, 1999; Knight, Simpson, & Hiller, 1999; Welsh, 2007; Rhodes et al., 2001). Further, where other criminogenic needs are present, treatment programs should be augmented to include **strategies that address criminal thinking** (ASAM 2014; Bourgon and Armstrong 2005; Pearson and Lipton 1999; Pearson, Lipton, Cleland and Lee, 2002).

Table 4: Treatments

Source	Method	Findings
Baldwin et al., (1991)	Referrals for young males with drink-related offending behaviours were obtained from local courts. Following an assessment interview, young offenders completed either a talk-based Alcohol Education Course (AEC) or a behavioural AEC. At follow-up interviews, differences in dependent variables of offending and drinking behaviour were examined.	Both the talk-based and behavioural interventions yielded significant reductions in criminal offending rates. The study is limited by the absence of a ‘non-treatment’ comparison group.
Prendergast et al., (2006)	A meta-analysis was conducted on 78 studies of drug treatment conducted between 1965 and 1996. Each study compared outcomes among clients who received drug treatment	Controlling for these methodological variables, further analyses indicated that drug abuse treatment has both a statistically significant and a clinically meaningful effect in reducing

Table 4: Treatments		
Source	Method	Findings
	with outcomes among clients who received either minimal treatment or no treatment.	<p>drug use and crime, and that these effects are unlikely to be due to publication bias.</p> <p>For substance abuse outcomes, larger effect sizes tended to be found in studies in which treatment implementation was rated high, the degree of theoretical development of the treatment was rated low, or researcher allegiance to the treatment was rated as favourable. For crime outcomes, only the average age of study participants was a significant predictor of effect size, with treatment reducing crime to a greater degree among studies with samples consisting of younger adults as opposed to older adults</p>
Chanhatasipla et al., (2000)	An assessment of 15 community-based outpatient treatment programs for chemically dependent adult offenders was undertaken using the format of the University of Maryland's 1997 report to the US Congress.	The review finds less optimism about the effectiveness of this type of drug treatment than previous reviews. The assessment of these studies indicated that programs that increase the supervision, monitoring, or control over offenders in the community are not effective in reducing recidivism. There is insufficient evidence to determine whether outpatient treatment alone, specific components of the treatment (such as acupuncture), or aspects of the treatment (intensity) are effective in reducing criminal activity. It is unclear whether this is the effect of the TC, the length of treatment, or the combination of the TC and the aftercare.
Britt et al., (1992)	The authors use experimental data from Pima County and Maricopa County, Arizona, where defendants were randomly assigned to drug monitoring and to non-monitoring groups to explore this issue.	<p>Their findings show that in two Pima County samples, there was only a slight reduction in the rate of pretrial rearrest, and there were no differences for failure to appear at trial. In Maricopa County, their first sample shows no difference in the rate of pretrial misconduct between the monitored and nonmonitored groups. The second sample shows the monitored group to have a higher rate of pretrial failure, contrary to expectations. The authors conclude their discussion by noting the research and the policy implications these results hold for future pretrial drug testing efforts.</p> <p>A meta-analysis combining studies 3 and 4 showed a significant OR for arrest at 90 days favouring the comparison group OR 1.33 (95% CI, 1.04 to 1.70)</p>
Wexler et al., (1999)	Data collection consisted of face-to-face interviews and reviews of criminal justice records on a sample of 715 male inmates. Subjects were randomly assigned to the prison TC intent-to-treat group and no-treatment control group from a waiting list of inmates	Reductions in reincarceration rates of more than 40% at 12 months and more than 50% at 24 months after release from prison were found for the group that completed prison TC plus aftercare. These improvements remained significant after controlling for client

Table 4: Treatments		
Source	Method	Findings
	who had volunteered for substance abuse treatment in the Amity program.	characteristics that have been identified as predictors of recidivism.
Neilsen et al., (1999)	Follow-up data collected at 6 and 18 months after entry into the program indicate	<p>CREST clients have significantly lower relapse and recidivism rates than a comparable comparison group. CREST has similar effects on relapse and recidivism across sexes, racial/ethnic groups, and different age categories, although length of time in treatment and whether clients graduated do impact outcome variables.</p> <p>Reported drug use as measured by self-report at 6- month OR 0.12 (95% CI 0.08, 0.18) and 18-month follow-up OR 0.28 (95% CI 0.17 to 0.47)). The ORs were both found to be statistically significant favouring the CREST work release therapeutic community over routine work release.</p> <p>Reported criminal activity as measured by recidivism for any offence, which referred to an offender being arrested and charged. These outcomes were collected through self-report and referred to 6-month OR 0.32 (95% CI 0.20 to 0.50] and 18- month follow-up periods OR 0.36 (95% CI 0.23 to 0.58).</p>
Sacks et al., (2004)	Randomly assigned male inmates with co-occurring serious mental illness and chemical abuse (MICA) disorders to either modified therapeutic community (MTC) or mental health (MH) treatment programs. On their release from prison, MICA inmates who completed the prison MTC program could enter the MTC aftercare program	he results, obtained from an intent-to-treat analysis of all study entries, showed that inmates randomized into the MTC group had significantly lower rates of reincarceration compared with those in the MH group. The results also show that differences between the MTC + aftercare and comparison group across a variety of crime outcomes (i.e. any criminal activity, and alcohol or drug related criminal activity) are consistent and significant, and persist after an examination of various threats to validity (e.g. initial motivation, duration of treatment, exposure to risk)
Petersilia et al., (1992)	Using separate samples to assess the effectiveness of intensive supervision and surveillance in comparison to routine parole and to assess the effectiveness of intensive supervision and surveillance in comparison to intensive supervision alone	<p>A series of different outcome measures were used:</p> <p>Recidivism at one year OR 1.98 (95% CI 1.01 to 3.87)</p> <p>Arrest at one year OR 1.49 (95% CI 0.88 to 2.51)</p> <p>Drug arrest at one year OR 1.10 (95% CI 0.50, to 2.39)</p> <p>Conviction at one year OR 0.93 (95% CI 0.55 to 1.58)</p> <p>Incarceration at one year OR 0.88 (95% CI 0.50 to 1.54)</p> <p>A series of different outcome measures were used:</p>

Table 4: Treatments

Source	Method	Findings
		<p>Recidivism at one year OR 2.09 (95% CI 0.86 to 5.07)</p> <p>Arrest at one year OR 1.22 (95% CI 0.51 to 2.88)</p> <p>Drug arrest at one year OR 1.29 (95% CI 0.35 to 4.85)</p> <p>Conviction at one year OR 1.14 (95% CI 0.22 to 5.91)</p> <p>Incarceration at one year OR 1.30 (95% CI 0.39, to 4.30))</p>
Haapanen and Britton (2002)	The present experimental study examined parole outcomes and arrests for 1,958 California Youth Authority parolees, randomly assigned to levels of routine drug testing ranging from “no testing” to two tests per month.	<p>Results showed no improved outcomes from more frequent drug testing. Early positive drug tests, however, indicated increased risk of recidivism.</p> <p>Study reported arrest at 24 and 42-month follow-up periods. Comparing the four groups receiving drug testing to the routine parole group revealed no significant effect sizes at 24 months OR 0.93 (95% CI 0.71 to 1.22), OR 1.05 (95% CI 0.79 to 1.38), OR 1.16 (95% CI 0.88 to 1.52), OR 1.11 (95% CI 0.77 to 1.59), OR 1.02 (95% CI 0.75 to 1.38), OR 1.06 (95% CI 0.78 to 1.45) and OR 1.24 (95% CI 0.8 to 1.89)). At 42 months the only significant OR was found to favour the routine parole group OR=1.46 (95% CI 1.05 to 2.02)</p>
Cornish et al., (1997)	Participation was voluntary and subjects could drop out of the study at any time without adverse consequences. Following orientation and informed consent, 51 volunteers were randomly assigned in a 2:1 ratio to a 6-month program of probation plus naltrexone and brief drug counselling, or probation plus counselling alone. Naltrexone subjects received medication and counselling twice a week, controls received counselling at similar intervals. All therapy and medication were administered in an office located adjacent to the federal probation department.	<p>Fifty-two percent of subjects in the naltrexone group continued for 6 months and 33% remained in the control group. Opioid use was significantly lower in the naltrexone group. The overall mean percent of opioid positive urine tests among the naltrexone subjects was 8%, versus 30% for control subjects ($p < .05$).</p> <p>Fifty-six percent of the controls and 26% of the naltrexone group ($p < .05$) had their probation status revoked within the 6-month study period and returned to prison.</p>
Henggeler et al., (1999); Schoenwald et al., (1996)	The effectiveness and transportability of multisystemic therapy (MST) were examined in a study that included 118 juvenile offenders meeting DSM-III-R criteria for substance abuse or dependence and their families. Participants were randomly assigned to receive MST versus usual community services. Outcome measures assessed drug use, criminal activity, and days in out-of-home placement at posttreatment (T2) and at a 6-month posttreatment follow-up (T3); also treatment adherence was examined	MST reduced alcohol, marijuana, and other drug use at T2 and total days in out-of-home placement by 50% at T3. Reductions in criminal activity, however, were not as large as have been obtained previously for MST

Table 4: Treatments		
Source	Method	Findings
	from multiple perspectives (i.e., caregiver, youth, and therapist)	
Hanlon et al (1999)	This study examined the 1-year parole outcomes of 504 newly released parolees with a history of heroin and/or cocaine abuse who were randomly assigned, within gender, race, and primary drug of choice, to one of the following three interventions: a program of “social support,” combining weekly urine monitoring with counseling, case management, and case advocacy; weekly urine monitoring alone; and routine parole.	Results indicated a superiority of social support treatment over the other two comparison conditions, particularly urine monitoring alone. Supplemental analyses indicated a general superiority of substance abuse treatment over no treatment, whether or not treatment was delivered within the social support framework.
Martin et al., (1993)	This article reports on early findings from an ongoing longitudinal study of the efficacy of an intensive case management approach, Assertive Community Treatment (ACT), for treating parolees with past drug problems, compared with a group of parolees who were not offered this treatment program. Using follow-up data on 135 subjects interviewed at release from prison and then reinterviewed about six months later, the ACT group and comparison group are examined in terms of recidivism and relapse to drug use	Multivariate analyses, however, suggest several important variables that were not manipulated in this “quasi-experiment,” but are predictive of relapse and recidivism. Although the limited sample size available at present precludes any definitive conclusions, discussion focuses on the direction of findings and highlights the necessity for multivariate controls in assessing the effectiveness of any intervention with criminal justice clients.
Source: Adapted from abstracts and article summaries		

The efficacy of behavioural treatments for drug use should be augmented, where applicable, with the **use of pharmacotherapy**. There is now a sizable evidence-base concerning the effectiveness of pharmacotherapy treatments in facilitating drug treatment, improving drug treatment retention and reducing reoffending – specifically methadone and buprenorphine for the treatment of opiate dependency – (Parker & Kirby, 1996; Coid et al., 2000; Keen et al., 2000; Pearson and Lipton, 1999; Marsch et al., 2005; Schottenfeld, Chawarski, & Mazlan, 2008; Kinlock, Gordon, Schwartz, & O’Grady, 2008; Kinlock et al., 2009). Importantly, although pharmacotherapy is an effective treatment in its own right, research as shown that its positive impact is amplified when coupled with other psychosocial and cognitive-behavioural treatments (Rohsenow 2004; Montoya et al., 2005; Epstein et al., 2009).

Table 5: Pharmacotherapy		
Source	Method	Findings
Marsch (1998)	Empirical research findings from 11 studies investigating the effect of methadone maintenance treatment (MMT) on illicit opiate use, and eight and 24 studies investigating the effect of MMT on HIV risk behaviours and	Results demonstrate a consistent, statistically significant relationship between MMT and the reduction of illicit opiate use, HIV risk behaviours and drug and property-related criminal behaviours. The effectiveness of MMT

Table 5: Pharmacotherapy

Source	Method	Findings
	criminal activities, respectively, by individuals in such treatment were addressed	is most apparent in its ability to reduce drug-related criminal behaviours. MMT had a moderate effect in reducing illicit opiate use and drug and property-related criminal behaviours, and a small to moderate effect in reducing HIV risk behaviours.
Minozzi et al., (2006)	We searched the Cochrane Drugs and Alcohol Group Register of Trials (January 2005), Cochrane Central Register of Controlled Trials (CENTRAL - The Cochrane Library Issue 1, 2005), MEDLINE (1973-first year of naltrexone use in humans- January 2005), EMBASE (1974-January 2005), PsycINFO (OVID-January 1985 to January 2004). We inspected reference lists of relevant articles and we contacted pharmaceutical producers of naltrexone, authors and other Cochrane review groups.	Ten studies, 696 participants, met the criteria for inclusion in this review. Only two studies described an adequate allocation concealment. The results show that naltrexone maintenance therapy alone or associated with psychosocial therapy is more efficacious than placebo alone or associated with psychosocial therapy in limiting the use of heroin during the treatment (RR 0.72 95% confidence interval 0.58 to 0.90). If we consider only the studies comparing naltrexone with placebo, the difference do not reach the statistical significant, RR 0.79 (95%CI 0.59 to 1.06). With respect to the number of participants re incarcerated during the study period, the naltrexone associated with psychosocial therapy is more effective than the psychosocial treatment alone; RR 0.50 (95%CI 0.27 to 0.91).
Dolan et al., (2003)	All eligible prisoners seeking drug treatment were randomised to methadone or a waitlist control group from 1997 to 1998 and followed up after 4 months. Heroin use was measured by hair analysis and self report; drugs used and injected and syringe sharing were measured by self report. Hepatitis C and HIV incidence was measured by serology.	Of 593 eligible prisoners, 382 (64%) were randomised to MMT (n=191) or control (n=191). 129 treated and 124 control subjects were followed up at 5 months. Heroin use was significantly lower among treated than control subjects at follow up. Treated subjects reported lower levels of drug injection and syringe sharing at follow up. Reported drug use as measured by drug testing (hair analysis; official records) at 2 months OR 0.67 (95% CI 0.36 to 1.25), 3 months OR 0.46 (95% CI 0.25 to 0.82) and 4 months OR 0.66 (95% CI 0.37 to 1.21) follow-up. The OR was found to be significant at three months only, favouring the intervention group.
Source: Adapted from abstracts and article summaries		

Although individuals should be provided with no more treatment that is required by their level of criminogenic need, where drug dependency is identified, programs should **employ treatment services for a minimum duration of 90 days** (three months). The length of time spent in treatment is universally acknowledged as an important predictor of drug treatment success. Spanning several decades of research (Simpson 1981; Simpson et al 1982; Hubbard et al 1989; Simpson et al 1997), empirical analyses of treatment outcomes have found more favourable results for clients who spend at least 90 days engaged with treatment services.

Table 6: Treatment length		
Source	Method	Findings
Simpson (1981)	A sample of 1,496 persons admitted to 26 community treatment agencies participating in the Drug Abuse Reporting Program (DARP) during 1972 and 1973 were located and interviewed in 1978 and 1979.	Favorableness of one-year posttreatment outcomes with respect to illicit drug use, criminality, and employment and other productive activities was found to increase linearly with the length of time patients stayed in methadone maintenance, a therapeutic community, or outpatient drug-free treatment. In addition, follow-up outcome for persons who spent less than three months in treatment was least favorable, and was not significantly different from that of persons in outpatient detoxification programs or who were admitted but not treated (intake-only). Persons who completed treatment generally stayed in treatment longer, as expected; they also had a more favorable outcome after DARP treatment than did others.
Simpson et al., (1982)	The results of the treatment evaluation research based on the Drug Abuse Reporting Program (DARP) are summarized and discussed. The DARP is a data system containing almost 44,000 admissions during 1969 to 1973 to 52 treatment programs located throughout the United States and in Puerto Rico. The current report focuses on the findings of a number of interlocking posttreatment follow-up studies based on data for three independent samples representing admissions to this system. These data include a total of 4,627 interviews conducted 5 to 7 years after admission to the DARP, and an average of over 4 years after termination from treatment.	The overall findings indicate that treatment in methadone maintenance, therapeutic communities, and outpatient drug-free programs was effective in improving posttreatment performance with respect to drug use, criminality, and productive activities. Significantly poorer outcomes were reported for outpatient detoxification programs and a group of comparison (intake only) clients.
Simpson et al., (1997)	Clients in the national Drug Abuse Treatment Outcome Study reported significant overall improvements in drug use and related measures during a 12-month follow-up period. A quasi-experimental design was used to examine the relationship of treatment duration with outcomes in each of the 3 major modalities represented.	Client subsamples with longer retention in long-term residential programs and in outpatient methadone treatment had significantly better outcomes than those with shorter lengths of stay (results were inconclusive for outpatient drug-free programs because of sample limitations).
Source: Adapted from abstracts and article summaries		

To effectively employ standardised behavioural treatments, programs should, where possible, ***adopt a regimen of rewards and incentives*** in both the treatment and criminal justice settings. Rewarding treatment progress and compliance, otherwise known as Contingency Management (CM), has proven to be an effective strategy for treating the drug dependency of offenders in the criminal justice system. CM has been shown to be just as effective as cognitive behavioural therapy (Rawson et al 2006), although the most favourable outcomes are typically found when CM and CBT are used

in concert (Budney et al., 2006; Carroll et al., 2006; Dutra et al., 2008; Kadden et al., 2007). CM has shown to be effective for the treatment of most drug types, including marijuana (Budney et al., 2006; Carroll et al., 2006; Kadden et al., 2007), methamphetamines (Rawson et al., 2006; Roll et al., 2006), cocaine (Budney et al., 2006; Epstein et al., 2009; Groß, Marsch, Badger, & Bickel, 2006; Higgins et al., 2006; Olmstead & Petry, 2009; Petry & Martin, 2002; Petry et al., 2005; Prendergast, Podus, Finney, Greenwell, & Roll, 2006), and opiates (Epstein et al., 2009; Groß et al., 2006; Higgins et al., 2006; Olmstead & Petry, 2009; Petry & Martin, 2002; Petry et al., 2005; Prendergast et al., 2006).

Table 7: Contingency Management		
Source	Method	Findings
Rawson et al., (2006)	Randomized clinical trial involving stimulant-dependent individuals (n = 171) assigned to CM, CBT or combined CM and CBT, 16-week treatment conditions. CM condition participants received vouchers for stimulant-free urine samples. CBT condition participants attended three 90-minute group sessions each week. Participants were interviewed at baseline and weeks 17, 26 and 52. Measures included psychiatric disorders and alcohol and drug use and concomitant social problems.	CM procedures produced better retention and lower rates of stimulant use during the study period. Self-reported stimulant use was reduced from baseline levels at all follow-up points for all groups and urinalysis data did not differ between groups at follow-up. While CM produced robust evidence of efficacy during treatment application, CBT produced comparable longer-term outcomes. There was no evidence of an additive effect when the two treatments were combined.
Budgney et al., (2006)	Ninety cannabis-dependent adults seeking treatment were randomly assigned to receive cognitive-behavioural therapy, abstinence-based voucher incentives, or their combination. Treatment duration was 14 weeks, and outcomes were assessed for 12 months posttreatment.	Findings suggest that (a) abstinence-based vouchers were effective for engendering extended periods of continuous marijuana abstinence during treatment, (b) cognitive-behavioural therapy did not add to this during-treatment effect, and (c) cognitive-behavioural therapy enhanced the posttreatment maintenance of the initial positive effect of vouchers on abstinence.
Carroll et al., (2006)	Marijuana-dependent young adults (N = 136), all referred by the criminal justice system, were randomized to 1 of 4 treatment conditions: a motivational/skills-building intervention (motivational enhancement therapy/cognitive-behavioral therapy; MET/CBT) plus incentives contingent on session attendance or submission of marijuana-free urine specimens (contingency management; CM)	MET/CBT without CM, individual drug counseling (DC) plus CM, and DC without CM. There was a significant main effect of CM on treatment retention and marijuana-free urine specimens. Moreover, the combination of MET/CBT plus CM was significantly more effective than MET/CBT without CM or DC plus CM, which were in turn more effective than DC without CM for treatment attendance and percentage of marijuana-free urine specimens. Participants assigned to MET/CBT continued to reduce the frequency of their marijuana use through a 6-month follow-up.
Dutra et al., (2008)	With a comprehensive series of literature searches, the authors identified a total of 34 well-controlled treatment conditions—five for cannabis, nine for cocaine, seven for opiate, and 13 for polysubstance users—representing the treatment of 2,340 patients. Psychosocial treatments evaluated included contingency management, relapse prevention, general	Overall, controlled trial data suggest that psychosocial treatments provide benefits reflecting a moderate effect size according to Cohen's standards. These interventions were most efficacious for cannabis use and least efficacious for polysubstance use. The strongest effect was found for contingency management interventions. Approximately

Table 7: Contingency Management		
Source	Method	Findings
	cognitive behavior therapy, and treatments combining cognitive behavior therapy and contingency management.	one-third of participants across all psychosocial treatments dropped out before treatment completion compared to 44.6% for the control conditions.
Kadden et al. (1997)	The present study employed a dismantling design to determine whether adding contingency management (ContM) to motivational enhancement therapy plus cognitive behavioral therapy (MET + CBT), an intervention used in prior studies of treatment for marijuana dependence, would enhance abstinence outcomes. 240 marijuana dependent participants were recruited via advertisements and assigned to either MET + CBT, ContM-only, MET + CBT + ContM, or to a case-management control condition. All interventions involved 9 weekly 1-h sessions, except for the ContM-only condition whose sessions lasted about 15 min. ContM provided reinforcement for marijuana-free urine specimens, in the form of vouchers redeemable for goods or services	Follow-up data were collected at posttreatment and at 3-month intervals for 1 year. The two ContM conditions had superior abstinence outcomes: ContM-only had the highest abstinence rates at posttreatment, and the MET + CBT + ContM combination had the highest rates at later follow-ups.
Source: Adapted from abstracts and article summaries		

Treatment types and modalities

Cognitive Behavioural Therapy

Cognitive-Behavioural Therapy (CBT) was first developed as a treatment for alcoholism, focusing on the identification and development of behavioural strategies for managing relapse. It was adapted for cocaine-addicted individuals US, and is now widely used for general substance use disorders (see Carroll and Onken 2005). Fundamental to CBT is the belief that maladaptive behavioural patterns (like substance abuse) are learned, and thus can be replaced with newly learned and reinforced behavioural repertoires. Individuals undergoing CBT learn to identify problematic behaviours and their triggers, as well as behavioural contingency strategies for mitigating the risk of relapse (Carroll et al. 2006). Such triggers may be internal (physiological cravings or stress reactions) or external (such as seeing friends, or being at specific locations). According to Rounsaville and Carroll (1992), CBT addresses several critical tasks that are essential to successful substance abuse treatment, including:

- **Foster the motivation for abstinence.** An important technique used to enhance the patient's motivation to stop cocaine use is to do a decisional analysis which clarifies what the individual stands to lose or gain by continued cocaine use.
- **Teach coping skills.** This is the core of CBT – to help patients recognize the high-risk situations in which they are most likely to use substances and to develop other, more effective means of coping with them.
- **Change reinforcement contingencies.** By the time treatment is sought, many patients spend most of their time acquiring, using, and recovering from cocaine use to the exclusion of

other experiences and rewards. In CBT, the focus is on identifying and reducing habits associated with a drug-using lifestyle by substituting more enduring, positive activities and rewards.

- **Foster management of painful affects.** Skills training also focuses on techniques to recognize and cope with urges to use cocaine; this is an excellent model for helping patients learn to tolerate other strong affects such as depression and anger.
- **Improve interpersonal functioning and enhance social supports.** CBT includes training in a number of important interpersonal skills and strategies to help patients expand their social support networks and build enduring, drug-free relationships.

A central component of CBT is the identification and anticipation of key triggers coupled with the development of trigger-avoidance and self-control strategies. Specific techniques include exploring the positive and negative consequences of continued drug use, self-monitoring to recognize cravings early and identify situations that might put one at risk of relapse, and developing strategies for coping with cravings and avoiding those high-risk situations. In more recent years, computer-assisted programming has been shown to be an effective tool for engaging clients in core CBT activities (Carroll et al., 2008). According to the National Institute of Drug Abuse, the key active ingredients that distinguish CBT from other therapies and which must be delivered for adequate exposure to CBT include:

- Functional analyses of substance abuse;
- Individualized training in the recognition of and coping with craving, managing thoughts about substance use, problem solving, planning for emergencies, recognizing seemingly irrelevant decisions, and refusal skills;
- Examination of the patient's cognitive processes related to substance use;
- Identification and debriefing of past and future high-risk situations;
- Encouragement and review of extra-session implementation of skills;
- Practice of skills within sessions.

CBT has been evaluated extensively, including through randomised clinical trials and meta-studies (Dutra et al 2008; Magill and Ray 2009; Carroll 1996; Hofmann et al., 2012). In the meta-analysis by Magill and colleagues (2009), for example, the outcomes of 34 randomised clinical trials of CBT (compared to standard drug counselling or treatment-as-usual) were examined yielding an average effect size in the moderate range ($d=0.45$). Notably, CBT appeared more effective for the treatment of cannabis, cocaine and opioids, but less effective in the treatment of poly-drug use. Among the different types of CBT programming, the most favourable outcomes were found when CBT was coupled with contingency management programs.

Results have shown that CBT clients have more favourable long-term outcomes than those who receive minimal or no treatment at all (Carroll et al 1994; Rawson et al 2002). When compared with other active interventions, however, the long-term results for CBT have been mixed. Project MATCH, one of the largest and most comprehensive alcohol dependency treatment trials, found CBT to be as effective as 12-step programs and Motivational Enhancement Therapies (Project MATCH 1998). More recently, Farabee and colleagues (2002) found that CBT clients were significantly more likely than those treated with contingency management to be using relapse avoidance techniques at 12 months after treatment.

CBT has also been found to be effective in addressing other problem behaviours, including criminal offending (Hofmann et al., 2012). Hofmann et al. (2012) identified 269 meta-analytic reviews that examined CBT for a variety of problems. Across four meta-analytic studies that examined the impact

on criminal offending, there was a small to medium effect size (Illescas, Sanchez-Meca & Genoves, 2001; Losel & Schmucker, 2005; Pearson et al., 2002; Wilson, Bouffard & MacKenzie, 2005). Another review by Landenberger & Lipsey (2005), which Wilson (2006) argued was the most methodologically sophisticated meta-analysis of CBT to date, concluded that CBT was associated with a 10 percentage point reduction in reoffending (from a 50% base rate). Also important from the perspective of tackling comorbidity, there is evidence that CBT can be effective in addressing a range of mental health conditions, including bipolar disorder, anxiety disorders and personality disorders (Hofmann et al., 2012). The size of the effect varied between the different types of conditions.

Moral Reconciliation Therapy (MRT)

Moral Reconciliation Therapy is a systematic cognitive-behavioural counselling program developed by Little and Robinson (1988) with demonstrated capacity for treating drug use (Bahr et al. 2012; Wanberg & Milkman, 2006) and reducing reoffending (Ferguson and Wormith 2012; MacKenzie, 2006; Wilson, 2016), including as part of a drug court program (Cheesman and Kunkel 2012; Heck 2008; Kirchner and Goodman 2007). MRT operates as an open-ended, workbook-based program conducted as a series of group-work and homework exercises, each aimed at reducing drug use and challenging criminal thinking. The program is run across 16 steps (or units), 12 of which are completed in a group counselling environment, while the remaining four steps are completed individually. The 16 steps are clustered into four phases:

- Engagement
- Creating change
- Reinforcing permanent change
- Transitioning to the future (optional and individual)

Underpinned by a cognitive-behavioural philosophy, MRT addresses beliefs and reasoning, in an effort to restructure a participant's cognitive scripts about both drug use and crime. Central to the program is an attempt to address moral reasoning and improve decision making skills, thereby fostering more prosocial activity and community-minded engagement. MRT is indicated for offenders who meet the DSM-V diagnostic criterion for one or more substance use disorders (Robinson 2012). Importantly, new clients can enter the program at any time and can be incorporated into the cohort of existing clients who are at the more advanced stages of their treatment.

The outcome of MRT have been the subject of more than 20 years of empirical examination (Robinson 2012). More recently, these studies have also included the analysis of MRT efficacy within the drug court context. Little (2006), for example, examined the results of 15 adult drug court where MRT was the primary treatment and intervention program. Overall, the recidivism rate of drug court graduates across these 15 programs combined was 12.8 percent within 32 months; a result considered much more favourable than has been seen in other larger drug court meta-evaluations. Further, the cumulative graduation rate of drug courts offering MRT appears to be greater than is typically achieved (Robinson 2012). Other studies have also demonstrated favourable outcomes for drug courts in which MRT is offered. For example:

- In 2011, a study of the Thurston County Drug Court, Washington, Kirchner (2011) found that for young drug court participants in particular, the completion of at least half of the MRT steps was associated with a 74 percent reduction in the likelihood of reoffending.
- In a study of juvenile drug courts using MRT in Maryland (Florida) and New Mexico, program retention rates (60%) and reoffending rates (between 6.8% and 21%) were more favourable than the average estimates typically reported for juvenile courts (Kirchner 2010).

- A multi-level analysis of in-program and post-program recidivism for drug court clients in Virginia found that MRT produced significantly lower probabilities of reoffending when compared to other treatment modalities (Cheesman et al. 2012)

MRT has also proven effective for improving outcomes for criminal justice populations where there is a high prevalence of mental health disorder. An evaluation of the Idaho Falls Mental Health Court, for example, found that MRT was linked to a 98% reduction in psychiatric hospitalisation days and an 85% reduction in incarceration time over two years (Olsen and Jaeger 2007). In the Thurston County Drug Court, Kirchner (2011) found that clients who participated in MRT also reported significant improvements in their mental health symptoms, namely, depression (down by 67%), self-esteem (down by 24%) and traumatic symptoms (down by 24%).

Table 8: Moral Reconciliation Therapy (MRT)		
Source	Method	Findings
Cheesman & Kunkel (2012)	Cost benefit evaluation of the Virginia Adult Drug Treatment Courts	A multi-level analysis of in-program and post-program recidivism for drug court clients in Virginia found that MRT produced significantly lower probabilities of reoffending when compared to other treatment modalities (Cheesman et al. 2012)
Kirchner (2011)	Evaluation of the Thurston County Drug Court	Clients who participated in MRT also reported significant improvements in their mental health symptoms, namely, depression (down by 67%), self-esteem (down by 24%) and traumatic symptoms (down by 24%).
Kirchner (2010)	Study of juvenile drug courts using MRT in Maryland (Florida) and New Mexico	Program retention rates (60%) and reoffending rates (between 6.8% and 21%) were more favourable than the average estimates typically reported for juvenile courts (Kirchner 2010).
Olsen & Jaeger (2007)	An evaluation of the Idaho Falls Mental Health Court	MRT was linked to a 98% reduction in psychiatric hospitalisation days and an 85% reduction in incarceration time over two years (Olsen and Jaeger 2007).
Bahr, Masters & Taylor (2012)	Reviewed empirical research on the effectiveness of drug treatment programs, particularly those for prisoners, parolees, and probationers. Reviewed empirical research published after the year 2000 that was classified as Level 3 or higher on the Maryland Scale.	Effective treatment programs tend to (a) focus on high-risk offenders, (b) provide strong inducements to receive treatment, (c) include several different types of interventions simultaneously, (d) provide intensive treatment, and (e) include an aftercare component
Ferguson & Wormith (2012)	This study reports on a meta-analysis of moral reconciliation therapy (MRT). Recipients of MRT included adult and juvenile offenders who were in custody or in the community, typically on parole or probation. The study considered criminal offending subsequent to treatment as the outcome variable.	The overall effect size measured by the correlation across 33 studies and 30,259 offenders was significant ($r = .16$), indicating that MRT had a small but important effect on recidivism. Moderator analysis demonstrated that MRT was more successful with adult than juvenile offenders in institutional settings as opposed to the community, and where researchers in the primary studies used

Table 8: Moral Reconciliation Therapy (MRT)

Source	Method	Findings
		randomization to allocate participants to either a treatment or control condition. The treatment effect size was greater when the type of recidivism used was rearrest rather than rearrest followed by conviction or reincarceration.
Heck et al. (2008)	Using a combination of NCIC and local police data from Wyoming, this study focuses on the short-term effects of the drug court intervention on offender criminal trajectories. Wyoming's drug courts operate in a manner consistent with most drug courts around the nation by focusing on offender supervision, judicial oversight, frequent and random drug testing, and intensive substance abuse treatment.	The results of this outcome analysis suggest dramatic reductions in criminal offending both during the drug court program and for the year immediately following the program participation.
Little (2006)	Examined the results of 15 adult drug court where MRT was the primary treatment and intervention program.	Overall, the recidivism rate of drug court graduates across these 15 programs combined was 12.8 percent within 32 months; a result considered much more favourable than has been seen in other larger drug court meta-evaluations.
Wilson et al. (2005)	Quantitatively synthesized the extant empirical evidence on the effectiveness of structured cognitive-behavioural programs delivered to groups of offenders.	The evidence summarized supports the claim that these treatments are effective at reducing criminal behaviour among convicted offenders. All higher quality studies reported positive effects favouring the cognitive-behavioural treatment program. Specifically, positive reductions in recidivism were observed for moral reconciliation therapy, reasoning and rehabilitation, and various cognitive-restructuring programs.
Burnett (1996)	Evaluated the effectiveness of MRT among parolees using a quasi-experimental design. Individuals in the treatment and comparison group were matched on age, gender, ethnicity, and time period under the jurisdiction of the corrections department.	Rearrest and recidivism rates after one year favoured the treatment group, with fewer rearrests (10% c/f 20%) and lower reincarceration rates (0% c/f 10%).
Little & Robinson (1989)	The study included 115 convicted drunk drivers in a county jail who agreed to participate in a treatment program compared with 65 convicted drunk drivers who volunteered but were not selected due to limited treatment slots. Study participants were followed, on average, for a total of 6 years.	Early follow-ups showed a small difference favoured the moral reconciliation participants with regard to rearrest for a DUI/ DWI. However, this difference disappeared over time. The effect of moral reconciliation on criminal favouring was generally more positive at all measurement points. The average effect across measurement points and different indices of recidivism was positive and modest (0.21), albeit statistically nonsignificant.
Little et al., (1991)	70 male felony offenders treated with MRT during and after incarceration were assessed.	Recidivism in the treated group was 24.3% as compared to 36.6% for the control group.

Table 8: Moral Reconciliation Therapy (MRT)		
Source	Method	Findings
	for rearrests and re-incarceration 38 months after their release. They were compared to a non-treated control group of 82 male felony offenders.	Analysis showed that steps completed significantly correlated with rearrests and recidivism and that the correlation between number of aftercare sessions and recidivism approached significance.
Little et al., 1991	Assessed MRT effects with felony drug offenders. The control group consisted of felony drug offenders who applied for the treatment during the same time period as the treated offenders but did not participate due to an insufficient number of treatment slots—that is, a wait-list condition. Thus, both treated and nontreated offenders volunteered for the program and were drawn from the same larger population. Four measures of recidivism were used, and at the final follow-up point, study participants had 7 years, on average, at risk for reoffense.	The average effect was modest to moderate in size (0.28) and statistically nonsignificant. Two of the individual effects were reported as statistically significant by the authors, and all effects favoured the moral reconciliation condition.
Little et al., 1994	This study evaluated the effects of MRT for the general offender population in the Shelby County Correctional Facility in Memphis, Tennessee. The limited number of treatment slots allowed for the random assignment of offenders who expressed an interest in the program's treatment and control conditions. The follow-up recidivism data for the treatment group includes program completers and dropouts.	The 5-year recidivism rate for the MRT condition was 41% compared with 56% for the comparison offenders (effect size = 0.33, $p < .001$). Furthermore, the MRT participants had lower levels of criminal involvement at all follow-up periods on all indicators of recidivism, providing strong evidence of the effectiveness of this program.
Source: Adapted from abstracts and article summaries		

Therapeutic Communities

A therapeutic community is a treatment facility in which the community itself, through self-help and mutual support, is the principal means for promoting personal change (Box 7). In a therapeutic community, residents and staff participate in the management and operation of the community, contributing to a psychologically and physically safe learning environment where change can occur. In a therapeutic community there is a focus on social, psychological and behavioural dimensions of substance use, with the use of the community to heal individuals emotionally, and support the development of behaviours, attitudes and values of healthy living. Importantly, therapeutic communities can also target the psychological and social factors that influence drug abuse, through CBT, CM, relapse prevention, counselling, relapse prevention and motivational interviewing (Holloway & Bennett, 2016).

Therapeutic communities may be prison-based or they may be located in community-based treatment centres. Meta-analytic reviews have concluded that therapeutic communities have some of the strongest positive evidence of any prison-based substance abuse programs (Wilson, 2016). A review of 30 studies by Mitchell (2007) concluded that therapeutic communities reduced reoffending from 50 to 42 percent, a small but significant effect size. There is also evidence that

incarceration-based therapeutic communities lead to consistent but modest reductions in drug relapse (Mitchell, MacKenzie & Wilson, 2012). There is also reasonably strong evidence for community-based therapeutic communities, with all three meta-analyses that have examined the impact of therapeutic communities finding a positive impact on reoffending among clients (Holloway & Bennett, 2016). The results in terms of substance use are not as strong, with a recent systematic review finding that substance use decreases during the program, but that relapse was common (Malivert et al., 2012).

Box 7: Australasian Therapeutic Community Association – Recommendations for staff competency and training (2014)

1. TCs should include amongst their staff a range of skills, experience and qualifications encompassing psychology, counselling, health and particular practice skills relevant to the activities undertaken in the TC.
2. It is particularly important that TC staff possess the skills, attributes and understanding of group dynamics that will enable them to establish and maintain the safe, supportive environment that is essential to the therapeutic nature of TCs.
3. The presence on staff of people with a personal history of substance abuse is supported. Such individuals should obtain appropriate training before becoming a member of staff.
4. Further work should be undertaken to identify an appropriate balance between experiential and professionally qualified staff, and the nature and extent of training that would enable staff with a personal history of addiction to most effectively apply that experience within the TC approach.
5. Research should be undertaken in a TC context to identify staff competencies important to the delivery of effective interventions.
6. TCs should implement a program of staff training and development, drawing on nationally agreed competencies for alcohol and other drug workers, to foster a culture of workforce development.
7. TCs should ensure supportive supervision and opportunities for staff to discuss potentially stressful issues.

Motivational Interviewing / Motivational Enhancement Therapy (MET)

Motivational Interviewing as a form of drug treatment was first described by Miller and Rollnick (2002) in response to Prochaska and DiClemente's (1984) stages of change model. MI, or Motivational Enhancement Therapy (MET), is described as a client-centred, empathic, but directive counselling strategy designed to explore and reduce a person's ambivalence about engaging in treatment and stopping their drug use. The MI/MET approach aims to induce rapid and internally motivated change through counselling sessions where empathic listening and skilful interviewing techniques are used. The four basic principles of MI are (CSAT 1999):

- Express empathy – the counsellor communicates that the client always is responsible for change and respects the client's decision on this issue;
- Identify discrepancies – The counsellor encourages the client to focus on how current behaviour differs from high/her ideals and goals.

- Roll with resistance and avoid arguing – Rather than resist client resistance, the counsellor uses strategies to reduce resistance.
- Support self-efficacy – The counsellor recognises client strengths and encourages him or her to believe that change is possible

A review of 59 studies on the effectiveness of MI by Smedslund et al. (2011) found that individuals who received MI were more likely to reduce their substance use, relative to people who have not received any treatment. However, there was little difference when compared with other active treatments, treatment as usual and being assessed and providing feedback. There was not enough evidence to draw overall conclusions about the impact of MI on treatment retention, readiness to change or repeat offending (Smedslund et al. 2012). Research on MI and MET suggests that its effects may depend on the type of drug used and the goal of the intervention. These approaches have been used successfully for alcohol and marijuana-dependent in adults, especially when combined with other CBT techniques; however, Smedslund et al. (2011) were unable to use meta-analysis techniques to compare difference substance types because of the relatively small number of rigorous studies. Nevertheless, the results of MET appear mixed for people abusing other drugs (e.g., heroin, cocaine, nicotine) and for adolescents who tend to use multiple drugs. In general, MET seems to be more effective for engaging drug abusers in treatment than for producing changes in drug use.

Contingency Management Interventions

Research has demonstrated the effectiveness of treatment approaches using contingency management (CM) principles, which involve giving patients tangible rewards to reinforce positive behaviours such as abstinence. Studies conducted in both methadone programs and psychosocial counselling treatment programs demonstrate that incentive-based interventions are highly effective in increasing treatment retention and promoting abstinence from drugs (Petry et al 2000; Higgins et al 2000; Petry et al, 2002), including opiate and cocaine use disorders (Silverman et al. 1996; Silverman et al. 1996 Silverman et al. 1996) alcohol use disorders (Petry et al 1996), and marijuana use disorders (Budney et al 2000)

Voucher-Based Reinforcement (VBR) augments other community-based treatments for adults who primarily abuse opioids (especially heroin) or stimulants (especially cocaine) or both. In VBR, the patient receives a voucher for every drug-free urine sample provided. The voucher has monetary value that can be exchanged for food items, movie passes, or other goods or services that are consistent with a drug-free lifestyle. The voucher values are low at first, but increase as the number of consecutive drug-free urine samples increases; positive urine samples reset the value of the vouchers to the initial low value. VBR has been shown to be effective in promoting abstinence from opioids and cocaine in patients undergoing methadone detoxification.

Prize Incentives CM applies similar principles as VBR but uses chances to win cash prizes instead of vouchers. Over the course of the program (at least 3 months, one or more times weekly), participants supplying drug-negative urine or breath tests draw from a bowl for the chance to win a prize worth between \$1 and \$100. Participants may also receive draws for attending counselling sessions and completing weekly goal-related activities. The number of draws starts at one and increases with consecutive negative drug tests and/or counselling sessions attended but resets to one with any drug-positive sample or unexcused absence. The practitioner community has raised concerns that this intervention could promote gambling—as it contains an element of chance—and that pathological gambling and substance use disorders can be comorbid. However, studies examining this concern found that Prize Incentives CM did not promote gambling behaviour.

Community Reinforcement (Alcohol, Cocaine, Opioids)

Community Reinforcement Approach (CRA) Plus Vouchers is an intensive 24-week outpatient therapy for treating people addicted to cocaine and alcohol. It uses a range of recreational, familial, social, and vocational reinforcers, along with material incentives, to make a non-drug-using lifestyle more rewarding than substance use. The treatment goals are twofold:

- To maintain abstinence long enough for patients to learn new life skills to help sustain it; and
- To reduce alcohol consumption for patients whose drinking is associated with cocaine use

Patients attend one or two individual counselling sessions each week, where they focus on improving family relations, learn a variety of skills to minimize drug use, receive vocational counselling, and develop new recreational activities and social networks. Those who also abuse alcohol receive clinic-monitored disulfiram (Antabuse) therapy. Patients submit urine samples two or three times each week and receive vouchers for cocaine-negative samples. As in VBR, the value of the vouchers increases with consecutive clean samples, and the vouchers may be exchanged for retail goods that are consistent with a drug-free lifestyle. Studies in both urban and rural areas have found that this approach facilitates patients' engagement in treatment and successfully aids them in gaining substantial periods of cocaine abstinence.

A computer-based version of CRA Plus Vouchers called the Therapeutic Education System (TES) was found to be nearly as effective as treatment administered by a therapist in promoting abstinence from opioids and cocaine among opioid-dependent individuals in outpatient treatment. A version of CRA for adolescents addresses problem-solving, coping, and communication skills and encourages active participation in positive social and recreational activities.

The Matrix Model

The Matrix Model is not a specialised treatment modality, but a holistic and intensive framework for engaging, primarily stimulant (e.g., methamphetamine and cocaine) abusers in treatment. Originally known as neurobehavioral treatment, the Matrix model integrates several evidence-based treatment techniques into a comprehensive and individualised treatment plan targeting the participant's behavioural, emotional, cognitive and relationship issues. Participants learn about issues critical to addiction and relapse (CBT), receive direction and support from a trained therapist (MI/MET), and become familiar with 12-step and self-help programs. Patients are often monitored for drug use through urine testing.

In the Matrix model, the counsellor/therapist functions simultaneously as teacher and coach, fostering a positive, encouraging relationship with the participant and using that relationship to reinforce positive behaviour change (Obert et al., 2000). The interaction between the therapist and the patient is authentic and direct but not confrontational or parental (Rawson et al., 1995). Importantly, therapists must be trained to conduct treatment sessions in a way that promotes the patient's self-esteem, dignity, and self-worth. A positive relationship between patient and therapist is critical to patient retention, thought once established the Matrix model should:

- Maintain a strong therapeutic relationship between the client and the counsellor
- Teach clients how to structure time and initiate an orderly and healthy lifestyle
- Impart accurate, comprehensive and comprehensible information about acute and subacute withdrawal effects and cravings for substances
- Provide opportunities to learn and practice relapse prevention and coping techniques

- Involve family and significant others in the therapeutic and educational process to gain their support for – and prevent their sabotaging of – treatment
- Encourage clients to participate in community-based mutual-help programs
- Monitor treatment effectiveness by conducting random urinalysis testing.

A number of studies have demonstrated that participants treated using the Matrix Model show statistically significant reductions in drug and alcohol use and improvements in psychological indicators (Rawson et al., 1986; Rawson et al., 2002). Some research, however, has shown that as a consequence of the Matrix model's intensity, the program may not be suited to all clients (Obert et al. 2000) and may not allow sufficient time for other treatment needs to be addressed (NCBI).

Table 9: Matrix Model		
Source	Method	Findings
Obert et al., (2000)	Review of Matrix Model and evaluations	Several evaluations of the model have supported its usefulness and efficacy with methamphetamine (MA) users. Methamphetamine users appear to respond to treatment similarly to cocaine users and many continue to show improvements at follow-up.
Shoptaw, Rawson, McCann & Obert (2008)	Examined the effectiveness of Matrix outpatient stimulant treatment. Associated 146 subjects' in-treatment abstinence data, treatment lengths, and weekly treatment activities to their 6-month abstinence outcomes as part of an interim analysis of a NIDA treatment demonstration project.	Results indicated that the pretreatment subject characteristics of ethnicity and drug of choice significantly associated with treatment outcome using Matrix model treatment. Findings also demonstrated a treatment dose/abstinence response such that those who received longer Matrix treatment episodes demonstrated better abstinence outcomes. Further, in-treatment abstinence status and treatment length significantly associated with drug use status at follow-up. Provides evidence for the value of Matrix treatment and allows for these outcome data to be compared with reports on recent psychosocial treatments for stimulant dependence.
Rawson et al., (2002)	Patients with cocaine dependence who were receiving methadone maintenance treatment (n = 120) were randomly assigned to 1 of 4 conditions: CM, CBT, combined CM and CBT (CBT + CM), or treatment as usual (ie, methadone maintenance treatment program only [MMTP only]) (n = 30 per cell). The CM procedures and CBT materials were comparable to those used in previously published research. The active study period was 16 weeks, requiring 3 clinic visits per week. Participants were evaluated during treatment and at 17, 26, and 52 weeks after admission.	Urinalysis results during the 16-week treatment period show that participants assigned to the 2 groups featuring CM had significantly superior in-treatment urinalysis results, whereas urinalysis results from participants in the CBT group were not significantly different than those from the MMTP-only group. At week 17, self-reported days of cocaine use were significantly reduced from baseline levels for all 3 treatment groups but not for the MMTP-only group. At the 26-week and 52-week follow-up points, CBT participants showed substantial improvement, resulting in equivalent performance with the CM groups as indicated by both urinalysis and self-reported cocaine use data.

Table 9: Matrix Model		
Source	Method	Findings
Rawson et al., (1986)	Documented the clinical progress of 83 cocaine abusers at 8 months following treatment admission. During an evaluation session, patients self-selected either: no formal treatment (voluntary involvement in AA, CA, or NA); 28- day inpatient treatment; or the Matrix Model outpatient treatment.	The most noteworthy finding of this pilot study were reports of significantly less cocaine use by the Matrix patients at 8 months after treatment admission. The number of patients reporting a return to monthly or more cocaine use in the Matrix group was 4 of 30, compared to 10 of 23 in the inpatient group, and 14 of 30 in the no formal treatment group.
Rawson et al., (1995)	Through the Small Business Innovative Research Program the protocol for the Matrix Model was formalized into a 300 page treatment manual. After completion of the manual, a controlled trial of the model was conducted over a two-year period (Rawson et al., 1995). In this study 100 cocaine dependent subjects were randomly assigned to six-month Matrix treatment condition or they were referred to “other available community resources.” Subjects assigned to the community resource group were given detailed information on treatment alternatives in the area and were given a referral and an appointment time to receive an evaluation at a community treatment location. Subjects in both conditions were scheduled for 3, 6, and 12-month follow-up evaluations.	There was a strong positive relationship between the amount of treatment received and the percent of cocaine negative urine results for the Matrix subjects but not for the community resources subjects. Similarly, greater amounts of treatment participation for the Matrix subjects were associated with improvement on the ASI employment and family scales, and on a depression scale. These analyses supported the clinical impression of the counseling staff of an orderly dose-response association between amount of treatment and outcome status. This study supported the Model’s clinical utility but the results did not provide definitive empirical confirmation of its efficacy. High rates of attrition in both treatment groups reduced the number of subjects receiving a meaningful dose of treatment and further impaired the identification of differential treatment outcomes.
Source: Adapted from abstracts and article summaries		

Family Behaviour Therapy

Where appropriate, interventions should **encourage family involvement in treatment**. There is some evidence in support of Family Behaviour Therapy (FBT) for both adults and adolescents (Azrin et al., 1994; Carroll & Onken, 2005; Donohue et al., 2009; LaPota et al., 2011). FBT aims to reduce substance use problems along with a range of other co-occurring problems, such as conduct disorders, child mistreatment, depression, family conflict, and unemployment.

FBT combines *behavioural contracting* with *CM*. Working with the client and at least one other family member, therapists aim to encourage families to apply the behavioural strategies taught in therapy to help contribute to an improved home environment. Behavioural goals are developed by the client, based on a CM system, and may relate to aspects of family functioning such as effective parenting. They are then regularly reviewed by the client and significant other. Treatment interventions are chosen by the client, who is engaged in treatment planning, from a menu of options supported by evidence.

Similarly, since its first use in 1985, behavioural couples therapy (see O’Farrell et al., 1985) has been shown to be an effective means of encouraging abstinence and decreasing drug-related family

conflict, including domestic and family violence (Fals-Stewart et al 2001; O'Farrell and Fals-Stewart 2000; O'Farrell and Fals-Stewart 2002).

Tackling comorbidity and co-occurring disorders

Responsivity to treatment and supervision is critical to program and intervention success (Andrews and Bonta 2010; Simpson 2004). In part, this requires the tailoring of treatment and intervention regimens to meet the diversity of cognitive and psychosocial comorbidities within the criminal justice population. The high prevalence of mental health problems among criminal justice populations requires the ***coordination of comprehensive services that address co-occurring medical, mental health and psychosocial disorders***. Research has consistently shown that drug treatment outcomes, including those provided in concert with criminal justice interventions, can be improved considerably where co-occurring disorders and comorbidities can be treated concurrently and seamlessly with drug dependency (Freidman et al., 2003; McLellan et al., 1993).

Leveraging behavioural change and treatment retention

Many of the best practice principles already described above require higher levels of engagement and longer periods of retention than most criminal justice clients are likely to wilfully volunteer. Therefore, a key challenge for any criminal justice program is in its ability to engage offenders long enough for behavioural and other interventions can begin to take effect. In one of the earliest meta-reviews of US based drug court programs, Longshore and colleagues (2001) coined the term 'leverage' to describe one of the principal mechanisms through which criminal justice interventions might encourage legal compliance and treatment retention. Leverage in their view, "refers to the seriousness of [the] consequences faced by participants who fail to meet program requirements." (Longshore et al 2001: 13) and since their articulation later analyses have consistently shown that programs which create the perception of and then maintain leverage over participants are generally the most successful (Zweig et al., 2011). This is not necessarily because leverage itself is a predictor of more favourable outcomes, but rather, because medium to high leverage programs can encourage more active and longer participation in programs and treatment. Importantly, high leverage programs which offer best-practice interventions (cognitive behavioural treatments and motivational techniques) are likely to be more successful than high-leverage programs which do not offer such programs.

In their more recent multi-site review of US-based drug courts, Zweig et al (2011) examined whether drug courts with relatively high-leverage produced more favourable outcomes than those with relatively low-leverage. In their analysis, the measure of leverage was operationalised against five separate indicators, including whether: (1) case management was conducted by someone who was an actual employee of the drug court; (2) drug court participants regularly participated in court hearings (3) the drug court had explicit consequences for dropping out or terminating; (4) the client was told about the explicit consequences; and (5) the explicit consequences were in a contract for the client to sign. The cross classification of court-effectiveness by leverage rankings found that almost all effective courts were those in which the leverage over participants was medium or high, with the highest –leverage courts being the most effective in criminal recidivism outcomes. Specifically, the authors conclude that "high-leverage courts are significantly more effective at preventing crime than low-leverage courts.... [however] no statistically significant differences were found between medium- and high-leverage courts" (2011:140). For substance abuse outcomes, there was no statistically significant difference by leverage ranking, however a comparison of averages revealed that medium-leverage courts produced the most favourable outcomes, while low-leverage courts produced the least favourable (Zweig et al. 2011).

Leverage and the risk and need principles

Much of the research literature on intervention ‘leverage’ has emerged through evaluations of high-intensity programs such as drug courts. In many of these studies, ‘leverage’ is conceptualised as the severity of the sanction or outcome for program failure or termination. Post-plea and post-sentencing programs are thought to have greater leverage over offenders because in pre-plea or bail style programs, the ultimate question of sentencing on termination remains uncertain and there is a chance that no conviction will be recorded and no sentence issued (Longshore et al. 2001).

Several studies have examined the relative effectiveness of drug courts that utilise a pre-plea or post-plea model, compared with those courts that rely on a mixed or ad hoc approach. Some have found no impact on reoffending (WSIPP 2016). Wilson et al. (2006) concluded that there were larger effect sizes for the pre-plea or post-plea model, and that this difference was statistically significant. They argued that courts operating a pre-plea or post-plea model were more likely to impose sanctions and rewards in a more consistent and predictable way, whereas mixed or ad hoc approaches offered no uniform incentive for participants to complete the requirements of the program. Young and Belenko (2002) demonstrated that participants perceived more highly structured programs (ie drug courts, compared with probation) as exerting greater legal pressure, and that clients in these more coercive programs were nearly three times more likely to remain in treatment longer than six months.

Consistent with this finding, Mitchell et al. (2012) found that courts that dismissed or expunged charges on graduation had larger effect sizes (drug-related offending only). Conversely, there is some evidence that only admitting participants to the program post-plea or post-conviction is more costly and reduces graduation rates (Carey et al. 2008). A similar conclusion was reached by Shaffer (2011), who found that pre-adjudication courts were more effective than post-adjudication courts, and also that deferring sentence to a secure facility when a participant enters the program and terminating supervision at graduation were associated with reduced effect sizes.

Overall, this research suggests that the leverage of the court is important in motivating behaviour change. More specifically, drug courts appear most effective when the benefit of graduation for participants is avoiding a conviction, rather than some form of sanction.

Importantly, the ability to *leverage* treatment engagement and retention for minimally or unsupervised high-need offenders (low prognostic risk) is an often forgotten dimension of the RNR model. In many ways, leverage is likely to be provide the necessary link between risk and need, especially where a high-level of criminogenic need might necessitate high-intensity treatment, but where prognostic risk does not necessitate high-intensity supervision or sanctioning capabilities. A core consideration in the design of criminal justice based drug treatment interventions is, therefore, the extent to which the ***legal framework can leverage offenders into longer and more active treatment engagement*** such that there is sufficient time for best-practice interventions to have their greatest effect.

The problem of comparative pathways

To optimise the leveraging capabilities of the criminal justice system, the consequences of non-compliance or program termination must be clearly articulated, documented and understood by the participants. Similarly, the perception of leverage must be maintained for a period long enough to ensure that other treatment and rehabilitation motivators (i.e. responsivity) can be identified and activated. For high-need offenders, the availability of alternative non-treatment-based pathways is

an important feature of any justice system and offenders should always have the right to refuse treatment and proceed through the justice system as usual. Most importantly, refusing treatment should not provide grounds for lengthier or more severe sentences. Nevertheless, the availability of multiple pathways having the perception of roughly equal outcomes will weaken the leveraging capacity of the criminal justice system and limit its ability to assist high-need offenders into the treatment they require.

In the case of drug courts, for example, this problem normally presents when alternative non-treatment orders exist with potentially less onerous conditions than a 12-18 month drug treatment order. The regular appearance at court, the mandated participation in drug treatment, the regular and random drug testing, and the threat of imprisonment sanctions may all appear unreasonable when alternative options exist (such as court ordered parole). More problematic even, is when as a consequence of non-compliance the time spent on custodial sanctions begins to approach the amount of time that would have otherwise been spent in custody on a sentencing as usual regime.

It is neither ethical nor just to limit the availability of non-treatment pathways in the criminal justice system. However, the criminal justice system's capacity to leverage high-need offenders into treatment must be carefully balanced. The development of a continuum of drug-treatment interventions across any justice system must acknowledge the existing sentencing landscape and frameworks and in doing so develop reasonable expectations about the leveraging capacity of any new order that is developed and introduced.

Box 8: Queensland Stakeholder and Consultation Feedback (Leverage)

- The introduction of court-ordered parole as a sentencing option provided a potentially less intensive alternative sentencing option for prospective drug court clients. As a consequence, some offenders were inclined or encouraged to opt for a short prison sentence followed by court ordered parole.
- The prevailing focus of the former drug court, principally in its later years, was in managing and responding to non-compliance. Although it is important to respond appropriately to breaches, the over use of sanctions had led, in some circumstances, to voluntary termination. There was a view that some clients saw the drug court program as “too punitive and too much work” compared to alternative sentencing pathways.

Monitoring individual level success

Finally, individual level ***progress in treatment should be monitored*** for signs of disengagement and relapse. Specifically, ***routine drug testing*** has also been shown to be an effective tool for the treatment of drug dependency, especially among criminal justice populations (Matrix Research and Consultancy & NACRO, 2004; Sherman et al., 1997). Drug testing programs, coupled contingency management systems for rewarding treatment progress, are important tools for maintaining treatment retention and thereby maximising treatment duration.

Commitment to evaluation

Interventions in the criminal justice system should be subject to ongoing performance monitoring and systematic, independent evaluation. Ongoing program monitoring, in particular when conducted against performance benchmarks and known performance indicators, is beneficial to ensure that program outcomes are achieved in the longer term. Performance monitoring in this context refers to

the process of regularly collecting and monitoring performance information, reviewing program performance (ie using this information to assess whether a project is being implemented as planned and is meeting stated objectives), and using this information to identify where improvements might be made (National Research Council 2005). The distinction between performance monitoring and evaluation is that, while monitoring key indicators of performance may help provide some evidence that certain outcomes are being delivered, it does not provide immediate evidence as to the contribution of a program to those outcomes.

Evaluation is best conducted independently to verify the programs claims about its achievements. According to the United Nations Evaluation Group (UNEG) there are eight criteria which make for a good evaluation:

1. The evaluation process should be transparent;
2. Evaluators should have the necessary expertise;
3. Evaluation should be conducted by someone independent of the program;
4. Evaluators should remain impartial and involve a wide range of stakeholders;
5. The evaluation design and methodology should be purpose-driven;
6. There should be adequate planning for evaluation so that the necessary data can be collected;
7. The evaluation design and methods should be high quality; and
8. There should be follow-up to the evaluation to ensure that the recommendations have been implemented (UNEG 2005).

Evaluation is best conducted using a systematic approach, which involves planning evaluation early in the process—ideally during the initial stages of planning the program—and starts with the development of a program logic model and evaluation framework (Morgan & Homel 2013). This can then form the basis for decisions about the most appropriate evaluation design and methods.

Unfortunately, it is common for evaluation to be an afterthought, which poses numerous challenges for the measurement of key outcomes, such as the lack of appropriate baseline measures.

Irrespective of whether a process and/or outcome evaluation is being undertaken, it is important for the evaluation design and research methods to be determined early in the life of the program (Weatherburn 2009).

Building an effective Drug Court

Do drug courts work and for whom?

In recent decades, few criminal justice interventions have been subjected to the same level of evaluation activity as drug courts (Marlowe 2010). Given the volume of program evaluations that have been completed, several systematic reviews and meta-analyses have now been conducted (Table 1). Overall, the results lend support for drug courts in terms of their ability to reduce reoffending, although the strength of this evidence has been questioned in light of the relatively small number of experimental studies (Perry 2016). Mean effect sizes from meta-analyses estimate the impact of drug court programs on reoffending as being somewhere between eight percent and 13 percentage points (Table 1). Results vary because of the different inclusion criteria, follow-up periods (including within and post-program) and methodological rigour applied in selecting studies.

Table 10: Mean effects of adult drug court programs, by study		
Source	Number of programs	Mean effect size (percentage point change in offending)
Mitchell et al. 2012	92	-12
Shaffer 2011	82	-9
Wilson, Mitchell & MacKenzie 2006	55	-12
Latimer, Morton-Bourgon & Chretien 2006	66	-14
Aos, Miller & Drake 2006	57	-8
Lowenkamp, Holsinger & Latessa 2005	22	-8

Adapted from Marlowe 2010

Belenko (1998; 2001) completed two early systematic reviews of evaluations in the first decade following the introduction of drug courts. The first, which examined 30 evaluations of 24 unique programs completed between 1990 and 1998, concluded that criminal behaviour was substantially reduced while offenders were participating in the program. The relatively small number of evaluations that compared post-program recidivism for drug court graduates with the comparison groups also observed much lower recidivism rates, although this difference was reduced when terminators were included alongside graduates in the intervention group. In the second review, which examined a further 37 studies of 36 programs between 1998 and 2001, Belenko (2001) once again concluded that both drug use and recidivism rates were lower while clients were participating in the program. He was more circumspect about post-program reoffending, as only six studies included measures of post-program drug use and reoffending.

In 2005, the US General Accountability Office reviewed experimental and quasi-experimental evaluations of adult drug court programs in which the comparison group comprised non-drug court participants with adequate matching or statistical controls, focusing on recidivism, substance use relapse or program completion outcomes. They identified 27 'relatively rigorous' studies of 39 unique programs from a total of 117 studies. Their reviewed concluded that, overall, a lower

percentage of drug court program participants than comparison group members were rearrested or reconvicted while they were in the program, with fewer incidents and a longer delay until rearrest or reconviction. This was consistent for all offence types, and the differences endured up to one-year post-program. There was limited and mixed evidence in terms of substance use relapse outcomes, given the relatively small number of studies that examined drug use (n=8) and the conflicting results from urinalysis and self-report studies. Importantly, in one of the first reviews of the cost effectiveness of drug courts, the US General Accountability Office found that the benefits outweighed program costs in all evaluations in which this information had been reported. Finally, there was no conclusive evidence that specific drug court program components, such as the behaviour of the judge, the amount of treatment received, the level of supervision provided, and the sanctions for not complying with program requirements, affected participants' within-program recidivism.

In one of the earlier meta-analytic reviews, Latimer, Morton-Bourgon & Chretien (2006) analysed 66 drug treatment court programs between 1993 and 2005 in which the study used a comparison or control group comprising non-participants. They concluded that drug treatment courts reduced recidivism by 14% when compared to traditional criminal justice responses, but also found there was considerable variation in effect size estimates across the studies, indicating heterogeneity. Importantly, however, 85% of drug treatment courts demonstrated a positive impact. Several factors were associated with improved outcomes. Drug treatment courts were more effective for adult offenders—the effect size for youth was not statistically significant different from zero (based on small number of studies), meaning it was not possible to conclude with any certainty that drug treatment courts work for young offenders. Studies with longer follow-up periods produced larger effects, while there were diminished effects for more rigorous studies, including random assignment and studies that used non-participants as the comparison group rather than drop outs or non-completers. Finally, programs that provided services for 12-18 months demonstrated a significant reduction in recidivism when compared with shorter and longer programs, which they argued demonstrated the need to allow sufficient time for cognitive behavioural treatment to take effect, but not lead to treatment fatigue.

Like Latimer et al. (2006), Wilson, Mitchell & MacKenzie (2006) conducted a meta-analysis of experimental and quasi-experimental evaluations of adult and juvenile drug courts. They applied stricter methodological criteria in selecting studies, excluding studies that did not utilise a comparison group subject to routine processing (eg dropouts or participants of some other alternative program). Based on 50 studies of 55 drug court programs—the majority of which were unpublished (62%), unlike in earlier reviews—they concluded that drug offenders participating in drug court were less likely to reoffend than similar offenders sentenced to traditional options, such as probation. These findings held for reoffending during and after program. The reduction in overall offending was 13 percentage points across all studies, although the effect size of the two high quality randomised control trials was smaller (7 percentage points). There was little evidence that juvenile drug courts reduced reoffending. Wilson et al. were critical of the overall methodological quality of evaluations, noting that only five studies involved random assignment and half made no attempt to include statistical controls for differences between the intervention and comparison groups.

Mitchell, Wilson, Eggers & MacKenzie (2012) have since updated this review, utilising the same inclusion criteria but including studies up to 2011. They identified a total of 154 evaluations, including 92 adult drug courts, 34 juvenile drug courts and 28 driving while intoxicated (DWI) courts. The results in terms of reoffending were similar to the earlier review, with adult drug courts reducing overall recidivism by an average rate of 12 percentage points for drug court participants, and 13 percentage points for drug-related recidivism. There were smaller but significant effects for juvenile drug courts, which were found to reduce recidivism by an average of 6.5 percentage points. Recidivism by drug court participants was found to have been reduced recidivism both during and after drug court treatment, with these effects lasting at least 3 years post-drug court entry. However, Mitchell et al. were again critical of the standard of evaluation, classifying around 25% of adult drug court evaluations as being 'relatively rigorous'. The majority of evaluations used comparison group constructed from historical controls, clients who declined to participate or clients who were rejected, which each pose threats to the validity of the results. Further around half of the evaluations followed drug court participants for 12 months or less, making it difficult to assess the long-term effects of drug courts.

In the most recent review of adult drug courts, Sevigny, Fuleihan & Ferdik (2013) conducted a meta-analysis of studies that examined the impact of drug courts in terms of reducing incarceration. This was on the basis that one of the principal reasons for introducing drug courts was as a jail diversion strategy to reduce the burden on the criminal justice system. Despite the large number of evaluations that have been completed, Sevigny et al. were only able to locate 19 studies that measured incarceration outcomes. They concluded that there was a lower incidence of incarceration among drug court participants, with an estimated 32 percent of drug court participants receiving a term of imprisonment compared with an assumed rate of 50 percent of non-drug court participants. However, there was no difference in the total time served when compared with conventional supervision. They concluded that the benefit associated with the lower incarceration rate was offset by long sentences for drug court participants when they failed to comply with the conditions of the program. These findings suggest that, while drug courts may work as a jail diversion strategy, they may be less effective in reducing the overall burden to the criminal justice system of prolific drug offenders.

These findings also raise questions regarding the overall cost effectiveness of drug courts. Two recent studies have specifically addressed the question of drug court costs and benefits. The Washington State Institute of Public Policy (WSIPP 2016), as part of a broader program of work reviewing the costs and benefits of criminal justice policy options, concluded that the estimated program costs per drug court participant was \$4,984. This was significantly lower than the estimated benefits of \$13,015, based on 70 effect sizes, which produces a benefit to cost ratio of \$2.61 and a saving of \$8,031 per participant (all figures in \$USD).

Conversely, Downey & Roman 2010 conducted a Bayesian meta-analysis of drug court cost-effectiveness, which they proposed as an alternative approach to WSIPP offering a number of benefits, and concluded that while the '...mean drug court effect is certainly a reduction in arrests' there was less certainty around the financial return on investment. They suggest there is an 87 percent chance that a new drug court will effectively reduce recidivism, and 99 percent chance that this reduction will exceed 7 percentage points. Reflecting the heterogeneity of individual program

effects, they concluded that the strongest five percent of drug courts will reduce recidivism by 23 percentage points, whereas the bottom five percent will increase recidivism by up to three percentage points. Importantly, however, Downey & Roman concluded that the average drug court participant costs roughly \$10,000 more than normal court processing (twice the estimated cost produced by the WSIPP) and that, on average, drug court will cost \$5,000 more per participant than is yielded in benefits (less than half the estimate produced by the WSIPP). Although, once again, there was considerable variation between participants. They concluded that there is a 14 percent chance that the benefits of a new drug court program will exceed the costs.

Moderating effects of drug court characteristics

An important focus of these reviews and meta-analyses has been on attempting to ascertain the moderating effects of certain drug court characteristics on recidivism outcomes. Typically involving some form of meta-regression, these studies compare the mean effect sizes for studies according to whether the drug court model exhibited certain characteristics. The aim is to identify those characteristics that contribute to the overall effectiveness of drug court programs as a crime reduction measure, and which may be recommended as part of a core drug court model.

The challenge for these reviews is that there is often limited descriptive information on drug court characteristics to examine moderating effects on drug court effectiveness. A number of these studies have applied the conceptual framework developed by Longshore et al. (2001) to describe the structural and process characteristics of drug courts. They identify five court components:

- the use of the courts leverage to motivate offender change and the consequences for participants if they either fail to comply or are discharged from the court;
- the level of risk or severity of problems experienced by drug court participants;
- the intensity of the program in terms of the frequency of drug testing and court appearances and hours of treatment;
- the predictability of the program in terms of the severity, certainty and celerity of sanctions and rewards; and
- the emphasis on rehabilitation, including the focus on collaboration, multiple criminogenic needs and therapeutic intervention, the flexibility of the court and willingness to accept program terminations to re-enter the program.

In practice, the degree to which the presence (or not) of these core components is reported in the evaluation literature varies considerably. As a result, these reviews have tended to find only weak evidence that the nature of the drug court model affects drug court effectiveness, relying on high-level data to measure differences between programs (eg Mitchell et al. 2012). Further, the relatively small sample size has meant that each moderator has been examined in isolation, prohibiting interaction effects between variables being examined. This means it is difficult to rule out alternative explanations for the differential impacts of drug court programs that vary on the basis of a single characteristic. Despite these limitations, reviewers have concluded that ‘the fact that few of these moderator variables predicted effect size suggests that adult drug courts generally work and this effectiveness is largely robust to programmatic variations’ (Mitchell et al. 2012: 69).

To overcome these limitations, Shaffer (2011) combined the results of a meta-analysis with the findings from a survey of drug court administrators to better understand the contribution of different characteristics to the effectiveness of drug court models. In all, Shaffer examined the contribution of 11 theoretical dimensions, each based on a cluster of related variables. Moderating variables were examined using a series of weighted multiple regression models (one for each cluster) to identify significant variables. The R-squared for each regression model could then be compared to assess the degree to which each dimension explained the variance in the overall effect size from the meta-analysis. While this approach has helped to overcome the limitations of relying on meta-aggression results, it is still hampered by the problems associated with a relatively small sample size.

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)

Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
Washington State Institute of Public Policy 2016. Drug Courts. Olympia, WA: WSIPP	Experimental and quasi-experimental evaluation of adult drug courts Reported measure of criminal behaviour Sufficient information to compute an effect size	Up to 2016	70 effect sizes	Rearrest rates, Program costs and benefits	Estimated program costs per participant was \$4,984, compared with benefits of \$13,015 Benefit to cost ratio of \$2.61, benefits minus costs \$8,031 100% likelihood that program will produce benefits greater than the costs	Based on a meta-regression analysis, programs which excluded offenders convicted of dealing drugs were more successful in reducing recidivism Also analyzed follow up period, pre/post adjudication court condition and length of treatment, but found no statistically significant differences in recidivism associated with these variables	
Sevigny EL, Fuleihan BK & Ferdik FV 2013. Do drug courts reduce the use of incarceration?: A meta-analysis. Journal of Criminal Justice 41: 416-425	Experimental or quasi-experimental evaluation of US adult drug court program Comparison group subject to routine processing Included measure of incarceration outcomes	1990—2012	19 studies	Incarceration (jail, prison and overall) and Incarceration days (jail, prison and overall)	Lower incidence of incarceration (32% c/f 50%), but no difference in time served when compared with conventional supervision Benefit associated with lower incarceration rate offset by long sentences for drug court participants when they fail the program	Drug courts reduce the use of incarceration when they provide more intensive programming (higher frequency of status hearings in initial phase) Drug courts with policy demoting noncompliant offenders to early treatment phase more likely to use prison incarceration—better to refrain from using onerous in-program sanctions Courts that achieve 50%+ retention or graduation rate less likely to use jail	Relatively small number of studies specifically measure the impact of drug courts on incarceration outcomes

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)							
Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
						incarceration—better to minimise rates of failure Drug courts that accept offenders involved in drug distribution resort to prison more often	
Mitchell O, Wilson DB, Eggers A & MacKenzie DL 2012. Assessing the effectiveness of drug courts on recidivism: A meta-analytic review of traditional and non-traditional drug courts. <i>Journal of Criminal Justice</i> 60: 60-71	Experimental and quasi-experimental evaluation of adult and juvenile drug courts (largely self-identified) Comparison group subject to routine processing (ie not dropouts or alternative program) Reported measure of criminal behaviour Sufficient information to compute an effect size	1990—2011	154 evaluations, including 92 adult drug courts, 34 juvenile drug courts and 28 driving while intoxicated (DWI) courts	Reoffending (general and drug-related) measured using arrest, conviction or self-report data	Adult drug courts reduce recidivism to an average rate of 38% for drug court participants (general recidivism, 37% for drug-related recidivism), compared with assumed rate of 50% for non-participants Smaller effects for juvenile drug courts, which reduce recidivism to an average rate of 43.5% for participants, compared with 50% for non-participants Drug court participants have reduced recidivism during <i>and</i> after drug court treatment, with these effects lasting at least 3 years post-drug court entry	Few moderator variables revealed statistically significant relationships Courts that dismissed/expunged charges on graduation (ie use the court's leverage) had larger effect sizes (drug-related offending only) Courts that had more than two status hearings per month in earliest treatment phase (more intense programming) had larger reductions in drug-related offending Courts with less severe clients (exclusively non-violence and minor criminal history) statistically larger effect sizes for general offending Programs with the highest graduation rates had the largest effect sizes; however, courts with the smallest effect	Largest effect size observed in methodologically weaker evaluations Around 25% of adult drug court evaluations 'relatively rigorous'—majority of evaluations used comparison group constructed from historical controls, clients who declined to participate or clients who were rejected. Around half of the evaluations followed drug court participants for 12 months or less

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)

Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
						sizes had graduation rates in the middle-range	
Shaffer DK 2011. Looking inside the black box of drug courts: A meta-analytic review. Justice Quarterly 28(3): 493-521	Experimental or quasi-experimental evaluation of US adult drug court programs Comparison group subject to routine processing Reported measure of criminal behaviour	Up to 2006	60 studies reporting on 76 distinct drug courts and 6 aggregated courts	Not specified	Drug courts reduce recidivism by an average of 9 percent Four dimensions explain greatest amount of variance—target population, leverage, staff characteristics and intensity Service delivery, funding, treatment and philosophy moderate predictors of effectiveness Predictability, assessment and quality assurance minor predictors of effectiveness	Drug courts more successful if they exclude violent or non-compliant offenders more successful Pre-adjudication courts more effective than post-adjudication, while deferring sentence to secure facility and terminating supervision at graduation associated with reduced effect sizes Some program requirements (restitution, education) positively associated with effectiveness, others (community service, fines, employment and no. minimum contacts) negative Longer periods substance abuse treatment associated more positive outcomes, as were multiple treatment providers and internal treatment providers Formal response to first positive drug test more effective than exclusion Immediate response to major infractions, formal system	No data included on treatment quality Each dimension examined separately— Relatively small sample prohibited interaction effects between dimensions being examined Maximum R-squared for strongest predictors 0.19

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)

Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
						punishers positively associated with effectiveness, formal system rewards negatively associated	
Downey PM & Roman JK 2010. A Bayesian meta-analysis of drug court cost-effectiveness. Washington DC: Urban Institute	Experimental or quasi-experimental evaluation of US adult drug court programs Comparison group subject to routine processing Reported measure of criminal behaviour		86 drug court evaluations	Rearrest rates, Program costs and benefits	'Mean drug court effect is certainly a reduction in arrests' 87 percent chance that a new drug court will effectively reduce recidivism 99 percent change that this reduction will exceed 7 percentage points Top 5 percent will reduce recidivism by 23 percentage points; Bottom 5 percent will increase recidivism by up to 3 percentage points Average drug court participant costs roughly \$10,000 more than normal court processing On average, drug court will cost \$5,000 more per participant than is yielded in benefits, with 14 percent chance benefits will exceed costs	Not examined	Bayesian model proposed as alternative approach to WSIPP method Analysis limited to estimating program effects on rearrest rates in near term following program enrolments—long-term benefits of drug court could not be estimated
Wilson DB, Mitchell O & MacKenzie DL	Experimental and quasi-experimental	1993—2004	50 studies (55 evaluations)	Reoffending (overall and	Drug offenders participating in drug court less likely to	Weak evidence that the nature of the drug court	Generally weak methodological

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)

Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
2006. A systematic review of drug court effects on recidivism. Journal of Experimental Criminology 2: 459-487	<p>evaluation of adult and juvenile drug courts—specialised court for drug cases, non-adversarial, mechanism for referring offenders to treatment, judge actively monitored progress and provide sanctions</p> <p>Comparison group subject to routine processing (ie not dropouts or alternative program)</p> <p>Included measure of criminal behaviour</p>			<p>drug) measured using arrest, conviction or self-report data</p>	<p>reoffend than similar offenders sentenced to traditional options, such as probation</p> <p>Findings held for reoffending during and after program</p> <p>Reduction in overall offending was 26% across all studies; 14% reduction in two high quality RCTs</p> <p>Mean odds ratio for juvenile drug courts not statistically different to 1</p>	<p>model affects drug court effectiveness</p> <p>Pre-plea or post-plea model (clear incentive, high predictability) larger effects than those with mixed or ad hoc approach (low predictability)</p> <p>Single treatment provider have slightly larger effects (may be more likely to use CBT, enhance treatment integrity)</p>	<p>quality of evaluations—only 5 studies involved random assignment and half made no attempt to control for differences between intervention and comparison groups</p> <p>Limited descriptive information on drug court characteristics to examine moderating effects on drug court effectiveness</p>
Latimer J, Morton-Bourgon K & Chretien J 2006. A meta-analytic examination of drug treatment courts: Do they reduce recidivism. Department of Justice Canada	<p>Study examined effectiveness of a drug treatment court</p> <p>Study used a comparison or control group that did not experience drug treatment court</p>	1993—2005	66 drug treatment court programs	New conviction or new charge	<p>Drug treatment courts reduced recidivism by 14% when compared to traditional criminal justice responses</p> <p>85% of drug treatment courts demonstrated positive impact</p> <p>Considerable variation in effect size estimates indicating heterogeneity</p>	<p>Drug treatment courts are more effective for adults; effect size for youth not statistically significant different from zero (based on small number of studies)</p> <p>Studies with longer follow-up periods produce larger effects (ie difference in recidivism between drug court and non-participants)</p>	

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)							
Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
	Reported measure of recidivism Sufficient information to compute an effect size					Diminished effects for more rigorous studies, including random assignment and studies that use non-participants as comparison group (c/f drop outs or non-completers) Programs that provided services for 12-18 months demonstrated a significant reduction in recidivism compared with shorter and longer programs (effect size for shorter programs no different to zero)—balance between CBT to take effect vs treatment fatigue	
US General Accountability Office 2005. Adult drug courts: Evidence indicates recidivism reductions and mixed results for other outcomes. Washington DC: US General Accountability Office	Experimental or quasi-experimental evaluation of adult drug court program Comparison group comprising non-drug court participants with adequate matching or statistical controls Reported recidivism, substance use relapse or program	1997—2004	27 studies on 39 unique programs (from a total of 117 studies)	Recidivism within the program and post-program, substance use relapse or program completion outcomes	Lower percentages of drug court program participants than comparison group members rearrested or reconvicted within the program, fewer incidents and longer delay until rearrest or reconviction Consistent for all offence types, and differences endured up to one-year post-program Limited and mixed evidence in terms of substance use relapse outcomes	No conclusive evidence that specific drug court program components, such as the behaviour of the judge, the amount of treatment received, the level of supervision provided, and the sanctions for not complying with program requirements, affect participants' within-program recidivism.	27 relatively rigorous evaluations not representative of all drug court programs Evidence on substance use relapse limited to a small number of evaluations (8 studies)

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)							
Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
	completion outcomes				Completion rates ranged from 27 to 66 percent Benefits outweigh program costs in all evaluations in which information reported		
Belenko S 2001. Research on drug courts: A critical review 2001 update. National Drug Court Institute Review 4: 1-60	Drug court evaluation reports within the specified time period	1999—2001	37 studies on 36 unique programs (includes 7 juvenile drug court, 1 DUI court and 1 family drug court)	Recidivism during the program and post-program	Drug use and recidivism rates low while clients are in the program Post-program recidivism rates are also reduced in most studies; however, only six studies included measures of post-program drug use and reoffending Average of 47% of participants graduate the drug court	Not examined	Narrative review only, no meta-analysis performed
Belenko S 1998. Research on drug courts: A critical review. National Drug Court Institute Review 1: 1-27	Drug court evaluation reports within the specified time period	1990—1998	30 studies on 24 unique programs	Recidivism during the program and post-program	Most of the evaluations reviewed found that criminal behavior was substantially reduced during participation in the program All evaluations that compared post-program recidivism for drug court graduates and comparison groups find much lower recidivism rates—difference reduced when terminates included	Not examined	Narrative review only, no meta-analysis performed

Table 11: Summary of systematic reviews and meta-analyses on drug courts (most recent first)							
Source	Inclusion criteria	Time period	No. studies	Outcome measure	Results	Moderators	Limitations
					Estimated that 60% of drug court participants still in treatment at 12 months		

How do drug courts work?

The international drug court movement can be traced to Dade County, Miami Florida, where in 1989 a group of justice professionals sought to transform the local criminal justice response to drug-related crime (Goldkamp, 1994; Goldkamp & Weiland, 1993). Within 10 years, a further 492 drug courts had been established across the United States (NADCP) and the first Australian Drug Court in NSW was in its first year of operation. By mid-2012, almost 3,000 drug courts were in operation across the United States – with at least one in every state and territory – while in Australia, Drug Courts had emerged in Queensland, Victoria, South Australia and Western Australia (see Payne 2006).

As a local initiative, the Miami-Dade Drug Court developed as an experimental and largely undocumented intervention. Thereafter, the proliferation of drug courts as “open and evolving experimentalist institutions” (Dorf and Sable 2000: 837) was facilitated principally as a consequence of informal policy transference, whereby the practices and procedures of the original court were subsequently adapted to suit local conditions. According to Hora (2002), drug courts were a pragmatic but atheoretical response to an overwhelming growth in drug-related caseloads as well as a concern within the criminal justice system regarding the high rate of recidivism among drug related offenders. Importantly, no official statutes enabled the establishment of the first drug courts; instead their legal basis resided in the “ability of judges to impose probation in post-conviction drug court models, or the authority of prosecutors to dismiss charges in pre-conviction courts” (Roper 2007: 301).

Despite their atheoretical beginnings, the concept of therapeutic jurisprudence has since been retroactively applied by various commentators (see Hora et al 1999; Nolan 2001; Senjo and Leip 2001) to describe the uniqueness of the drug courts’ differentiated activities. Further, the key components of drug courts have been summarized and widely disseminated - the first major contribution arriving as a monograph nearly 10 years after the inception of the Miami-Dade experiment. The report *Defining Drug Courts: The Key Components* (OJP, 1997/2004) was produced by a Drug Court Standards Committee convened by the National Association of Drug Court Professionals. The Drug Court Standards Committee comprised an expert panel of drug court professionals (prosecutors, judicial officers, public defenders), researchers, and federal administrators who, on the basis of their experience, distilled “the basic elements that define drug courts” (OJP, 1997/2004, p. 4). These basic elements have since been widely recognized as the Ten Key Components, representing a “consensus statement about how a drug courts should operate and what components should be included” for effective implementation (Hiller et al. 2010:935) The components, intended as a guide to policy makers and practitioners considering the design and implementation of new drug courts were:

1. Integration of alcohol and other drug treatment with justice system case processing;
2. Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants’ due process rights
3. Eligible participants are identified early and promptly placed in the drug court program.
4. Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.

5. Abstinence is monitored by frequent alcohol and other drug testing.
6. A coordinated strategy governs drug court responses to participants' compliance.
7. Ongoing judicial interaction with each drug court participant is essential.
8. Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.
9. Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations.
10. Forging partnerships among drug courts, public agencies, and community-based organizations generates local support and enhances drug court program effectiveness.

Underpinning each of these 10 components were a series of performance benchmarks against which existing drug courts could assess the extent to which “drug court ideal” had been realized in their own location. For newly developed courts, the performance benchmarks have since been interpreted as providing a roadmap to successful implementation and outcomes (Carey, Finigan and Pukstas 2008; NPC Research 2009). Indeed, addressing the extent to which drug courts (existing or newly developed) will implement the 10 key components has become a requirement for drug courts wishing to receive federal funding (Bureau of Justice Assistance, 2005a, 2005b).

For more than a decade, the OJP's 10 Key Components and their associated performance benchmarks existed as the only available tool for policymakers and practitioners considering the implementation of new drug courts. Broadly, the Components are best conceptualised as the consensus position of a relatively small group of drug court practitioners about those key elements which differentiated drug courts from existing criminal justice programs and procedures. At the time of their development, however, only a relatively small number of drug courts had been evaluated for effectiveness and few of those studies, if any, had attempted to isolate the relative contribution of these specific components to the overall success of the drug court model. Put simply, drug courts were conceptualised as a complete package, and the mounting evidence of their effectiveness meant that all components were considered essential even if there was not yet sufficient evidence to support any of their specific elements as best practice.

To address this limitation Hiller and colleagues (2010) undertook the first major review of the 10 key components in which they compared and contrasted the key operational elements of drug courts using ‘importance ratings’ from a nationally representative survey of drug court coordinators in the United States. The purpose of the study was to identify, from a list of 43 drug court activities, which were the most highly rated and to what extent there were similar types of activities underpinning a core set of drug court principles. Methodologically, the authors developed a Drug Court Components Questionnaire, developed from an initial pool 73 items, one for each of the performance benchmarks identified by OJP (1997). After pilot testing with a small sub-set of drug court practitioners, the final pool of 43 items were then administered to the coordinators of 208 drug courts.

Using both exploratory and principal components factor analysis the authors concluded with a factor solution representing seven key operating principles underpinned by 27 of the original 73 performance benchmarks. These principles reflect those elements considered by drug court

practitioners themselves as important for the successful and effective implementation of the drug court model.

The first of these seven key principles was Eligibility and Program Components, which had an overall importance rating of 4.2 out of five and was the component for which the largest number of practitioners endorsed as important for drug courts. Underpinning this principle were eight separate items which in order of ranked importance were: participants are regularly tested for drug use (4.7); abstinence from alcohol and drugs is required before a participant completes the program (4.6); participants attend regular status/review hearings with the judge (4.5); a participant may be referred to more intensive treatment if needed (4.5); treatment assessments are completed within 30 days of when participants begin the program (4.3); participants can participate in educational and vocational assessment training (4.3); a participant must meet explicit legal criteria to be eligible for the program (4.4); and the severity of the sanction is matched with the seriousness of the infraction (4.3)

In order of perceived importance, the second key principle was Team Collaboration and Communication, comprised of four items and having an overall importance rating of 4.1 out of five. The most important of the four sub items was that major decisions are made collaboratively by the drug court team (4.3) and that the court and treatment staff do not have a difficult time communicating with each other (4.1). Importantly, the drug court practitioners in this survey also saw it as important that the drug court team works hard to understand each other's perspective (4.0) and that there is a unity of purpose such that everyone feels like they are an important part of the drug court team (3.9)

The third key principle identified Therapeutic and Individualised Jurisprudence, comprised of five benchmark items which encapsulate the relationship between the client and the court. Importantly, under this principle, drug court practitioners saw it important that, for drug courts to be effective, there must be therapeutic jurisprudential balance such that the operations of the court reflect both criminal justice and treatment goals (4.3) and that the traditional adversarial roles are set aside during the drug court process (4.0). The notion of individualized justice also emerged as an important theme for these drug court practitioners having recognized that the more effective drug courts are those where the judicial officer individualizes both sanctions (4.0) and rewards (3.8) to meet the therapeutic and criminal justice needs of each client. Finally, the role of the court in offering positive reinforcement by matching rewards to the level of compliance shown by the participant (3.9) was also acknowledged as an important differentiating feature of drug courts.

The remaining four key principles extracted from the Drug Court Components Questionnaire were Community Support (3.6), Data-driven Program Development (3.6), Graduated Sanctions (3.6) and Defense and Prosecution Collaboration (3.5). Taken together, these remaining four principles suggest that, in the view of drug court practitioners, drug courts are most effective in their differentiation from standard court and criminal justice procedures when (a) there is a common understanding and unity of purpose that is communicated and acknowledged by the public and policy community; and (b) when innovations such as the drug court are subjected to ongoing evaluation, monitoring and review.

Although this most recent work by Hillier et al. (2010) represents a significant empirical improvement over OJP's original 10 Key Components, the analysis is nevertheless limited to a

relatively small sample of drug court practitioners for whom we might reasonably argue are neither independent nor objective about the courts they themselves are responsible for administering. This is not to diminish the invaluable contribution of this insider perspective, but it must be carefully weighed against other sources of evidence before best-practice principles can be established. As Goldkamp argues, there is a widely accepted “conventional wisdom” (Goldkamp 2010:456) that drug courts generally outperform alternative criminal justice responses to drug-related crime, yet “drug court research has skirted the conceptually prior problems of [establishing and measuring] core constructs and construct validity by failing to resolve the serious underlying theoretical and empirical question” of defining what a drug court is and what it does (Goldkamp 2010:457). This, he argues, ought to be differentiated from the largely descriptive activities of the past, including the OJP’s 10 Key Components which, at best, “[appear] to represent descriptive themes, aims, or values, as opposed to an overall theoretical perspective” (Goldkamp 2010:464). What remains, therefore, is the challenge of ‘lifting the cover off drug courts’ in an effort to determine the key causal mechanisms underpinning the courts’ innovative practices (Sanford and Arrigio 2005). In particular, there is still need to encapsulate drug courts within a clear and concise conceptual framework, one that begins to parse out those mechanisms responsible for drug court effectiveness and, more importantly, their ineffectiveness when it occurs (Goldkamp, 2010)

Under the stewardship of Longshore and colleagues (2001), the RAND Corporation proposed one of the earliest conceptual frameworks for drug courts. Unlike the 10 Key Components, which is largely comprised of a list of court activities, this conceptual framework was designed as an apparatus through which researchers and practitioners could best understand the mechanisms through which drug courts achieve more favourable outcomes for their clients. In summary, Longshore and colleagues (2001) proposed five directly-measurable dimensions, including: (1) the extent to which courts have leverage over participants; (2) the nature of the target population and its severity; (3) the predictability of court’s response to participant behaviour; (4) the intensity of the program; and (5) the extent to which there is a rehabilitative focus governing the operation of the court.

In reply to Longshore and colleagues (2001), Goldkamp (2010) argues that although representing an important step towards a universal conceptual framework, the five aforementioned dimensions are nevertheless without theoretical and conceptual linkage because they do not necessarily differentiate drug courts from other types of treatment related interventions in the criminal justice system. In essence, Goldkamp (2010) suggests that drug courts are sufficiently unique such that any conceptual framework must not confuse their structures and operations as simply a more intensive part of the continuum of existing interventions. Consequently, drug courts ought to be conceptually, theoretically and practically differentiated from other court programs because: (1) they represent a new substantive focus on treatment with goals, values and methods that are non-traditional for the criminal court; (2) they incorporate a substantially new judicial role and new related roles for other actors; and (3) in their rejection of the traditional hands-off approach of referral-through-probation they necessitate a newly defined working relationship between the treatment sector and the criminal courts.

In an attempt to improve on earlier conceptualisations, Goldkamp (2010:467) offers seven dimensions across which drug courts and other drug treatment interventions can be differentiated, conceptualised and measured. These are:

- the extent to which drug courts vary with respect to their (1) *target problem* and (2) *target population*;
- the extent to which both criminal justice and clinical criteria are used for the (3) *identification, screening and evaluation* of potential candidates into (4) a *core structure and content of treatment* that is delivered as part of a (5) *system-wide support network* for the participant; and
- the degree to which the drug court has (6) a *court processing focus* that uses *adaptations* to traditional processing models and has the (7) capacity to *respond to client performance and accountability* (both positive and negative).

It is apparent from this review that there exists no single or unifying conceptual framework through which drug courts can be differentiated from other criminal justice and non-criminal justice related interventions. Instead, what has emerged from the literature are a series of organizing principles within which the ‘accepted’ practice of US-based drug courts can be articulated to policy makers and funding agencies. The most-widely utilized of these frameworks is the OJP’s 10 Key Components, which for all intents and purposes might appear as a useful starting point for Queensland as it embarks on the implementation of a new drug court program in that jurisdiction. However, a critical omission from the OJP’s report is any detailed discussion about the importance of implementation context and the extent to which different drug court components may or may not be effective in locations governed by different population, social and jurisprudential characteristics. This is where a unifying conceptual and theoretical framework becomes essential, so that the key features and activities of a drug court program can be understood not just as a set of practitioner-defined ‘essential practices’, but as empirically supported mechanisms for ‘better than average’ behavioural outcomes among high-risk clients. Understanding why drug courts work is an essential first step to ensuring that context-specific mechanisms can be identified and implemented successfully.

Why do drug courts work?

As earlier noted, there is no single or unifying theory for why drug courts produce better outcomes than their alternatives. Given the complexity of the underlying intervention model, the length of its implementation, and the diversity of the offenders likely to access drug courts, there is unlikely to be a single causal mechanism which defines their effectiveness. The challenge for policy makers and practitioners, therefore, is to understand what mechanisms are likely to contribute (and when) to the realisation of relatively better outcomes across the full length of the intervention.

To do this requires asking two separate questions. The first is *why do drug court graduates offend less often?* Understanding what factors contribute to improved outcomes for drug court graduates is a necessary first step to understanding how and why the drug court model works. The second question then is *how do drug courts create successful graduates?* The mechanisms which help to facilitate the transition of offenders to the point of graduation are not necessarily the same as those which later influence post-graduation re-offending. Parsing the drug court into long-term outcomes and short-to-medium-term mechanisms is an important step in understanding how and why these multifaceted and longitudinally dynamic programs are relatively more effective.

Why do drug court graduates commit fewer crimes?

Graduates have fewer criminogenic needs. By design, drug courts require participants to undertake treatment and intervention sub-programs that seek to address extant criminogenic needs. Among these, the amelioration of chronic and dependent level substance use is likely to be a significant

contributor, no longer necessitating economic compulsive offending and limiting psychopharmacological or situationally opportunistic offending. Substance use is not, however, the only criminogenic target of a well-designed and implemented drug court program. In addition, drug courts have the capacity to facilitate change across a number of criminogenic domains, including the stabilisation of accommodation and housing, the repatriation or reconnection to family, the reengagement with education and employment, the stabilisation or management of physical and mental health needs, the disconnection with antisocial and criminal peers, and the development of essential pro-social life skills. In all, drug court graduates should have less reason to commit crime by necessity and should be less often confronted with criminal opportunities.

Recognising the chronic and relapsing nature of drug dependency, treatment programs should not only facilitate a temporary reduction or cessation of drug use, but also ensure that **graduates are prepared to avoid (or rapidly redress) relapse**. After what is likely to be many years of drug abuse, the probability of post-graduation relapse remains high. The most successful drug court graduates are, therefore, those that are equipped with critical insight into personal relapse triggers and the skills necessary to avoid situations in which drug use triggers are present and strong. Further, and perhaps more importantly, graduates of the drug court program should be equipped with the skills and techniques necessary to minimise the length of relapse and to avoid its criminal and social consequences.

As a community-based treatment alternative to imprisonment, lower rates of post-program offending may be attributed to the fact that **graduates avoid the negative consequences of imprisonment**. Much has been written about the criminogenic nature of incarceration; that time spent in custody can increase the likelihood of reoffending whether as a consequence of greater associations with criminal peers, the internalisation of criminal identities and labels, or the foreclosure of post-incarceration employment, education and other pro-social opportunities. In any case, drug court graduates avoid further exacerbating their criminogenic needs by avoiding lengthy terms of imprisonment. As a consequence, the process of desistance may be activated through the drug court earlier than would otherwise be the case.

A considerable body of literature now confirms that individuals with positive perceptions of procedural justice and fairness are less likely to commit crime. Therefore, it is argued that drug courts produce more favourable outcomes because **graduates have an enhanced respect for the law and the legitimacy of legal institutions**. Specifically, it is thought that the architecture and procedures of a drug court foster greater respect among participants for the authority of the police and judicial officer and a greater appreciation of the criminal justice system's obligations to protect community safety. This in turn limits criminal offending by enhancing pro-social attachment to formal institutions and strengthening broader social bonds.

Reaching the end of a drug court program as a 'drug free and crime free success' is often the largest and most significant lifetime achievement for many drug court clients. The process of graduation and the acknowledgement of success is potentially transformative in its own right because as a consequence of this recognition **graduates have significantly enhanced self-efficacy and social capital**. In their theory of integrated social control, Sampson and Laub (1993) argue that desistance is more likely for offenders who develop strong pro-social attachments and enhanced feelings of self-efficacy. At graduation, it is likely that drug court clients enter the post-program phase with new or stronger pro-social relationships (including to formal institutions such as the court, police, corrective services), a more enhanced sense of self-worth, and a positive outlook on their own

individual capacity to maintain a prosocial lifestyle – each of which contribute to lower rates of drug use relapse and consequent reoffending.

Taken together, these explanations for the effect of drug courts can be engineered into a statement about the ideal ‘type’ of graduate and thus help to articulate the broad, long-term goals of a drug court program. For example, an ideal drug court graduate is one that:

- 1) Has fewer reasons to commit crime or take drugs;
- 2) Is equipped with the knowledge and skills necessary to identify and avoid relapse triggers and rapidly redress relapse if and when it occurs;
- 3) Is deterred from committing crimes or taking drugs because the consequences of doing so would weaken newfound attachments to prosocial institutions;
- 4) Has rejected their former identity as a drug-using offender and consequently adopted a positive outlook on their potential to maintain a trajectory of desistance.

How do drug courts create successful graduates?

Understanding why drug court graduates commit fewer crimes is only part of the drug courts complex story and the aforementioned description of an ideal drug court graduate could easily sit as the objective of any criminal justice invention that targets high-risk and high-need offenders. What matters most is how drug courts manage, unlike other interventions, to transition previously high-risk and high-need offenders to the point of graduation such that the benefits of the program can be realised.

Perhaps most importantly, the select and specialised nature of the drug court model maximises the likelihood that **offenders receive drug use and criminal-justice programs and treatments that are best practice**. Whereas in traditional contexts drug treatment and criminal thinking programs are geographically disparate, often underfunded and thus not widely available, in drug courts, the emerging coalition of judicial, law enforcement, corrections and health practitioners brings with it the funding and commitment to ensure that all drug court participants are afforded the necessary treatments and interventions, and more importantly, that those treatments and interventions meet standards considered best practice. This capacity of the drug court model is likely to be the single most significant contributor to their long-term success.

Providing best-practice treatments is key, but maintaining an individual’s engagement for a sufficiently long period of time is essential. Whether by leverage, procedural justice, compliance monitoring or other behavioural techniques, drug courts have been proven capable of **engaging offenders in treatment for periods long enough to activate cognitive and behavioural change**.

How do drug courts encourage participants to start the process of change?

Although drug courts may be able to call on significant financial and policy investment to deliver best-practice treatments to their participants, there still remains the difficult challenge of encouraging high-risk and high-need clients to engage. Is it here that the drug court itself has the greatest impact by **leveraging otherwise unwilling participants into treatment and motivating participants to respond positively to treatment goals and objectives**.

Leverage (see Longshore et al., 2001) is the most oft cited mechanism by which it is believed drug courts encourage and achieve relatively more positive outcomes than alternative criminal justice interventions. Specifically, the ability to afford successful clients a significant penalty reduction upon graduation has the power to leverage early engagement and encourage treatment retention during the initial phases of the program. Soon after, the compliance monitoring mechanisms of the court

send strong signals about the consequences of continued criminal or antisocial conduct, again adding to the leveraging capacity of the court to encourage persistent and proactive engagement in treatment.

Preventing reoffending is critical to effectively leveraging participants into sufficient lengths of treatment. For as long as a participant remains criminally active the court must, in the interests of community safety, respond with appropriate consequences and sanctions. During this time, the overwhelming focus of the court on compliance monitoring and consequences will most likely interfere with treatment engagement and motivation. Therefore, it is essential that ***drug court participants develop a strong perceptual deterrence***, founded on the courts ability to be ***swift and certain in the imposition of sanctions***.

Activating the motivation for change among an otherwise unmotivated and high-need population is a challenging prospect for any criminal justice intervention. However, motivating participants to be receptive to change most likely requires more than just leverage and the fear or threat of sanctions – especially if the resulting change is to last in the longer-term. To this end, drug courts must activate individual responsivity by ***challenging pre-existing perceptions of the criminal justice system, identifying personal motivators for change***, and ***rewarding success and progress in treatment***.

Target population

Like any criminal justice intervention, drug courts are not designed to work for everyone. An important consideration in designing an effective drug court is ensuring that the target population is appropriate and, where possible, narrowly defined. This is particularly relevant given the limited number of participants that will likely be able to participate in a drug court at any one time. Understanding which offenders are most likely to benefit from drug court, and also the needs of specific offender groups within a drug court model, can help to inform both the eligibility criteria for the program and also the specific components that may be matched or tailored to individual participants based on need.

There are two main requirements for participation in drug court. First, that the offender has a drug dependency problem, and this dependency is directly associated with their offending behaviour. Second, that they would be unlikely to succeed under minimal to moderate supervision arrangements, such as a probation order or court-ordered parole. Recalling the earlier section on prognostic and criminogenic risk, this essentially refers to offenders who are high risk and high need.

According to Marlowe (2012), the focus of drug courts on offenders who are high risk and high need is well supported by evidence. Research suggests these offenders are the most suited and likely to benefit from a drug court intervention that employs the ten NADCP principles. In a meta-analysis by Lowenkamp et al. (2005), the effect size for drug courts in terms of their impact on recidivism was found to be twice as high for high-risk participants, when compared with participants characterised as low-risk. Summarising the accumulated evidence from several other studies, Marlowe (2012) concluded that drug courts have the greatest impact on offenders who are comparatively young, have more serious prior convictions, have been diagnosed with an antisocial personality disorder, or have failed in less intensive alternatives.

Deriving information on drug court components from both surveys of program staff and the process evaluations that have been conducted, Zweig et al. (2012) conducted a multi-site comparison of 23 drug courts, ranking courts according to their relative success in reducing reoffending and substance use. They found that 18 of the 23 courts successfully prevented crime, and that more drug courts performed positively for the following sub-groups: older participants (30 years and older), males, people with one to four prior arrests (compared to no prior arrests and more than four), participants with no prior incarceration, participants who were older when they started using drugs, and participants with members of their peer or family network who had a conviction or drug problem. They also found that drug courts were more effective for participants whose principal drug of concern was alcohol, amphetamines, cocaine and other drugs.

Zweig et al. also examined the effectiveness of courts in preventing substance use, finding that 22 of the 23 courts prevented future substance use among participants. In addition to the groups above, more courts were also found to perform positively for participants who hadn't recently received any substance abuse treatment (in the six months prior to drug court referral).

Shaffer (2011) combined the results of a meta-analysis with the findings from a survey of drug court administrators to better understand the contribution of different characteristics to the effectiveness of drug court models. In all, Shaffer examined the contribution of 11 theoretical dimensions, each based on a cluster of related variables. Moderating variables were examined using a series of weighted multiple regression models (one for each cluster) to identify significant variables. The R-squared for each regression model was then compared to assess the degree to which each dimension explained the variance in the overall effect size from the meta-analysis. Target population

was found by Shaffer to be a significant predictor of effectiveness. Two variables were found to be negatively associated with effect size ($R^2=0.19$)—histories of non-compliance and prior violence. Specifically, drug courts that excluded offenders with a history of non-compliance or with a prior history of violent offending were more successful, overall, than those drug courts that accepted these offenders.

Carey et al. (2012) conducted a multi-site comparison of 69 adult drug court evaluations with both recidivism—measured as the number of new arrests within two years of program commencement—and cost outcomes. While they compared the outcomes for each program, they also recognised that courts with comparatively high-risk populations—higher rates of mental illness, more severe addictions, lower educational levels and fewer economic opportunities—were more likely to have fewer positive outcomes. They found that drug courts that allowed non-drug charges (ie not just drug possession offences), such as theft offences, had reductions in reoffending that were 95 percent higher than drug courts that only allowed drug possession charges. Importantly, they also concluded that drug courts that allowed participants with current violence charges or prior convictions for violent offences had recidivism or cost outcomes that were no better or worse than other courts. They suggest this finding is consistent with ‘other research [that] suggests allowing violent offenders into Drug Court programs can have a bigger positive effect on recidivism and cost outcomes than allowing only nonviolent offenders because greater savings are achieved when violent crimes are prevented rather than less serious (less costly) crimes’ (p 35). This does not mean that it is not still important to carefully consider the types of violence charges that are allowed. The safety of staff and other drug court participants remains paramount, and must remain an important consideration.

Based on their review of 92 adult drug court evaluations, Mitchell et al. (2012) concluded that courts with less severe clients (exclusively non-violence and minor criminal history) reported statistically larger effect sizes for general offending than courts with more severe participants. However, the effect sizes for courts that included violent offenders and were not restricted to offenders with minor criminal histories still indicated a significant positive impact on recidivism (ie they were less effective, but not ineffective).

Box 9: Queensland Stakeholder and Consultation Feedback (Target population)

- The introduction of court-ordered parole as a sentencing option provided a potentially less intensive alternative sentencing option for prospective drug court clients. As a consequence, some offenders were inclined or encouraged to opt for a short prison sentence followed by court ordered parole.
- The prevailing focus of the former drug court, principally in its later years, was in managing and responding to non-compliance. Although it is important to respond appropriately to breaches, the over use of sanctions had led, in some circumstances, to voluntary termination. There was a view that some clients saw the drug court program as “too punitive and too much work” compared to alternative sentencing pathways.

Box 10: South Australian Drug Court Eligibility

To be **eligible** for participation a person must fulfil ALL of these conditions

- Have committed an offence whilst an adult (18 years of age or above at the date of commission of the offences)
- Live in the boundaries of the Adelaide Metropolitan Area at a residence that is suitable for electronically monitored home detention bail. The geographical regional boundaries extend as far north as Gawler City Centre, as far South as Noarlunga City Centre and as far east as the foothills
- Be charged with an offence that is related to their drug use (but not necessarily a drug offence), for which they are likely to be imprisoned.
- Have either:
 - A current dependency on illicit drugs or
 - A previous dependency, which is not current due to an involuntary or forced abstinence; and have a high probability of returning to drug use.
- Indicate a willingness to participate in the Drug Court Program and comply with the case management plan developed for them
- Plead guilty to both the most serious offence and the majority of offences with which they have been charged

Persons are **not eligible** if:

- They are charged with a major indictable offence.
- Live outside the metropolitan boundaries

Source: <http://www.courts.sa.gov.au/OurCourts/MagistratesCourt/InterventionPrograms/Pages/Drug-Court.aspx#description>

Box 11: Victorian Drug Court Eligibility

To be an eligible candidate for a DTO the offender must meet the following conditions:

- The offender must not be subject to a Parole Order, Combined Custody and Treatment Order or a Sentencing Order of the County or Supreme Court
- The offender must plead guilty
- The offender's usual place of residence must be within a postcode area serviced by the Drug Court as specified in the Government Gazette
- The offence must be within the jurisdiction of the Magistrate's Court and punishable upon conviction by up to 2 years imprisonment
- The offence must not be a sexual offence or an offence involving the infliction of actual bodily harm
- On the balance of probabilities the Drug Court must be satisfied that:
 - the offender is dependant on drugs or alcohol; and
 - the offender's dependency contributed to the commission of the offence
- The Drug Court considers that under normal conditions, it would not have ordered that the sentence be served by way of intensive corrections in the community nor would it have suspended the sentence

- The offender must be willing to consent, in writing, to such a DTO.

Source: <https://www.magistratescourt.vic.gov.au/jurisdictions/specialist-jurisdictions/drug-court/eligibility-criteria>

Box 12: NSW Drug Court Eligibility

To be **eligible** for the Drug Court a person must:

- be highly likely to be sentenced to fulltime imprisonment if convicted;
- have indicated that he or she will plead guilty to the offence;
- be dependent on the use of prohibited drugs;
- Live in the Auburn, Bankstown, Blacktown, Campbelltown, Cessnock, Fairfield, Hawkesbury, Holroyd, Lake Macquarie, Liverpool, Parramatta, Penrith, Port Stephens, The Hills Shire or City of Sydney Local Government Areas;
- be referred from the District Court at Campbelltown, Parramatta, Penrith, East Maitland, Newcastle or Sydney;
- be referred from the Local Court at Bankstown, Belmont, Blacktown, Burwood, Campbelltown, Central, Cessnock, Downing Centre, Fairfield, Kurri Kurri, Liverpool, Maitland, Mount Druitt, Newcastle, Newtown, Parramatta, Penrith, Raymond Terrace, Richmond, Ryde, Toronto, Waverly and Windsor;
- be 18 years of age or over; and
- be willing to participate.

A person is **not eligible** if he or she is:

- charged with an offence involving violent conduct;
- charged with a sexual offence or an offence punishable under Division 2 Part 2 of the Drug Misuse and Trafficking Act 1985
- suffering from a mental condition that could prevent or restrict participation in the program;
- has previously been a Drug Court participant and it is less than three years since final sentence was imposed in relation to the participant's last Drug Court program, or if it is less than three years since the completion of the non-parole period of any final sentence that was imposed (not suspended), whichever is the later; and
- has been previously refused as not an appropriate person within the past two years of current date of referral.

Source: http://www.drugcourt.justice.nsw.gov.au/Pages/dc_program/dc_referrals.aspx

Multi-disciplinary team

The Drug Court team is a multidisciplinary group of professionals responsible for administering the day-to-day operations of a Drug Court, including reviewing participant progress during pre-court staff meetings and status hearings, contributing observations and recommendations within team members' respective areas of expertise, and delivering or overseeing the delivery of legal, treatment, and supervision services (Hardin & Fox, 2011). Some Drug Courts may have additional governing bodies such as Steering Committees that are not involved in the daily operations of the program, but provide oversight on policies and procedures, negotiate MOUs between partner agencies, garner political and community support for the Drug Court. Researchers have examined the influence of the multidisciplinary Drug Court team on participant outcomes but have not addressed the influence of other governing bodies.

Team Composition

Much of what is known about the efficacy of drug courts relies heavily on the presumption that, as a multidisciplinary alternative to traditional criminal justice system processes, more is better. Yet, other than in an examination of process, few, if any, studies have attempted to identify the optimal composition of a drug court team—one which minimises cost and maximises both client-level and program-level outcomes.

According to the NADCP's Adult Drug Court Best Practice Standards:

"The drug court team comprises representatives from all partner agencies involved in the creation of the program, including but not limited to a judge or judicial officer, program coordinator, prosecutor, defense counsel representative, treatment representative, community supervision officer, and law enforcement officer." (NADCP 2013:38)

Each member of the team plays an important and unique role in facilitating the criminal justice and therapeutic aims of the court. The **judicial officer**, for example, is most often the leader of the Drug Court team, responsible for authorising sanctions and actions which impose restrictions on the liberties of participants. In some jurisdictions, a non-judicial officer, such as a judicial registrar or commissioner, may preside over the Drug Court, reporting directly to a sworn judicial officer when judicial authorisation is required. **To date, there has been no study which has examined the comparative effectiveness of courts lead by non-judicial officers.**

The management of a drug courts day-to-day affairs is typically the responsibility of a drug court **program coordinator** – an administrative officer or clerk, typically employed by the court, to manage the court schedule, organise team meetings, and undertake the relevant administrative tasks of the court. In some US based Drug Courts, the program coordinator position is adopted by a senior probation officer or, less often, a clinical officer. In any case, the drug court coordinator is seen as critical to the integrity of the court program, the maintenance of accurate and timely records, providing oversight and delegation for fiscal and contractual responsibilities, facilitating communication between team members and partner agencies, ensuring policies and procedures are followed, overseeing collection of performance and evaluation data, scheduling court sessions and staff meetings, and orienting new members of the team to the practices of the court.

Representing the police is a **prosecutor** whose responsibility it is to advocate on behalf of the community and in the interests of public safety. The prosecutor represents victim interests and plays an important role in holding participants accountable for meeting their legal obligations. The prosecutor may also help to resolve other pending legal cases that impact participants' legal status

or eligibility for Drug Court. Representing the participant is a **public defence representative** (Legal Aid Officer) whose responsibility it is to ensure participants' legal rights are protected. Research has shown that attendance by the prosecutor and the participant's legal representative at all drug court team meetings and drug court sessions increases graduation rates and savings associated with improved participants outcomes, because it leads to improved communication and quicker decision making (Carey et al., 2008).

The individual or agency responsible for the community supervision of drug court participants are an important inclusion on the drug court team. The **community supervision officer** will typically be responsible for overseeing or implementing the courts' drug and alcohol testing program, conducting home or employment visits, and enforcing curfews and travel restrictions, where applicable. In some Drug Court models, the role of community supervision is delegated to specially trained case managers or social service professionals who may not be employees of the local department of corrective services. Ideally, community supervision professionals also deliver or make available through referral, cognitive-behavioural interventions designed to improve participants' problem-solving skills and challenge dysfunctional criminal-thinking patterns (Harberts, 2011). To date, there are no drug court evaluations which have examined the relative effectiveness of those programs in which externally contracted supervision and case management professionals are used.

Typically, an **Alcohol and Other Drug treatment representative** will also serve as a member on the drug court team, representing the therapeutic interests of each participant. Since it is possible (or likely) that participants will be referred to multiple treatment agencies, Drug Courts will often designate one or two treatment professionals to serve as treatment representatives (Carey et al., 2012). The treatment representatives are responsible for collating and reporting clinical information about each participant's engagement and progress in treatment. Importantly, the health and clinical expertise of the AOD representative is vital to the decision making process of the court – especially as it relates to the interpretation of relapse-related non-compliance and the value of sanctions and rewards.

Finally, it is not uncommon for a **Law Enforcement Officer** to be included in the drug court team. In the US context, this is considered essential since the public prosecutor is not necessarily a representative of the state police agency. However, since in many Australian jurisdictions the public prosecution services to the magistrate's courts are normally provided by police-prosecutors, the public prosecutor then serves a dual role on the Drug Court team. The involvement of law enforcement is seen as essential in reshaping offender attitudes towards the criminal system, especially since it is the police with whom participants will have the most criminal-justice related interaction once in the community.

Ultimately, there is no substantial or direct evidence in favour of a particular drug court team model. Where there are variations between different courts, there has been no direct examination of their differences in terms of individual or program level outcomes. Some meta-studies have pointed to the potential importance of representation and involvement of particular agencies (see Carey et al., 2008), although in most cases this analysis has focused on the consistency of participation and attendance, rather than on the specific roles each team member performs. The one exception to this was Zweig and colleagues (2011) meta study of 69 adult drug courts in which it was found that recidivism reductions were 87 percent greater in drug courts where law enforcement was specifically identified as a member of the drug court team. Teams are often brought together by necessity, given the complex legal and therapeutic functions and objectives of the court program, and what seems to matter most is that each party to the drug court team manages their

responsibilities through a non-adversarial approach and shares in the court's overarching therapeutic philosophy and objectives.

Pre-Court Team Meetings

It is standard practice for drug court status hearings to be preceded by a pre-court team meeting at which the matters relevant to and/or affecting drug court participants are discussed within the confines of a closed court. Nominally, all team members are encouraged to participate, regularly and consistently. According to the NADCP's Adult Drug Court Best Practice Standards:

"Team members consistently attend pre-court staff meetings to review participant progress, determine appropriate actions to improve outcomes, and prepare for status hearings in court. Pre-court staff meetings are presumptively closed to participants and the public unless the court has a good reason for a participant to attend discussions related to that participant's case." (NADCP 2013:38)

It appears important that all members of the drug court team, once appointed, maintain consistent attendance at pre-court team meetings. According to various meta-studies, consistent attendance fosters stronger inter-departmental relationships and has been shown to be linked to significantly better drug court outcomes (Carey et al., 2012; Cissner et al., 2013; Rossman et al., 2011; Shaffer, 2010). For example, in a meta-study of nearly seventy Drug Courts in the United States, Carey et al., (2012) found that programs were 50 percent more effective at reducing recidivism when all team members were consistently in attendance at pre-court team meetings. Also, drug courts were more than twice as effective at reducing recidivism when the program coordinator, treatment representative, and law enforcement representative attended consistently (Carey et al., 2012), and were nearly twice as cost-effective when defence counsel consistently attended pre-court meetings.

Unfortunately, between-court comparisons have only examined the general consistency of attendance by drug court team members and agency representatives. They have not examined whether the presence of specific agencies or individuals are critical to overall success. Further, although it is typically the case that pre-court team meetings are conducted in a closed court, there have been no studies to date which have examined whether this process is more effective than an open court arrangement. Instead, the decision about whether pre-court team meetings should be conducted in closed or open court should depend on which of the procedures is likely to be the most therapeutically appropriate for participants. On the one hand, allowing pre-court meetings to occur in open court may limit the willingness of key drug court team members to discuss important individual and treatment specific information of a personal and sensitive nature. This could be significantly consequential as such matters are likely to be critical to delivering effective treatment or developing effective individual treatment plans (Stasiewicz et al., 2008). Further, although not specific to drug court, some studies have reported that drug treatment participants can experience psychological harm by receiving unfettered access to their treatment provider's diagnostic impressions and conclusions about their treatment progress (Lajeunesse & Lussier, 2010; Ross & Lin, 2003; Sergeant, 1986; Short, 1986; Westin, 1977).

Information Sharing and Communication

For every member of the drug court team, the court process and procedures will be unfamiliar and differ significantly from traditional practice. Though each member of the team will bring an individual perspective and philosophy, the combined effort of the court and its underlying therapeutic focus will be a significant challenge for all members of the program. Key to ensuring inter-agency and intra-agency success of the drug court program is the ability and willingness of drug court team members to commit to sharing information (via the execution of memoranda of

understanding) about clients that would not otherwise be shared in a criminal justice context. For a drug court to work most effectively, the magistrate and drug court team must establish a trusted therapeutic relationship with participants. This requires all drug court team members to share information that is important and relevant to each client's therapeutic and criminal justice management.

The need for inter-agency data and information sharing has been recognised as a key practice principle by the National Association of Drug Court Professionals:

"Team members share information as necessary to appraise participants' progress in treatment and compliance with the conditions of the Drug Court. Partner agencies execute memoranda of understanding (MOUs) specifying what information will be shared among team members. Participants provide voluntary and informed consent permitting team members to share specified data elements relating to participants' progress in treatment and compliance with program requirements. Defence attorneys make it clear to participants and other team members whether they will share communications from participants with the Drug Court team." (NADCP 2013:38)

Similarly, the importance of intra-team communication, specifically as they relate to client participation and progress, has been noted as essential for an effective drug court program:

"Team members contribute relevant insights, observations, and recommendations based on their professional knowledge, training, and experience. The judge considers the perspectives of all team members before making decisions that affect participants' welfare or liberty interests and explains the rationale for such decisions to team members and participant." (NADCP 2013:38-39)

Team Training

All members of the drug court team, including new members, should be adequately and appropriately trained before taking their position within the court. Commitment to the overall drug court philosophy and understanding the therapeutic inclination of the court is essential so that all team members work in unison for the sake of participants. Training should be thorough and ongoing. It should educate practitioners not only about their agency-specific requirements, but about the roles and responsibilities of other agencies represented in the court. Accordingly, the National Association of Drug Court Professionals notes that:

"Before starting a Drug Court, team members attend a formal pre-implementation training to learn from expert faculty about best practices in Drug Courts and develop fair and effective policies and procedures for the program. Subsequently, team members attend continuing education workshops on at least an annual basis to gain up-to-date knowledge about best practices on topics including substance abuse and mental health treatment, complementary treatment and social services, behaviour modification, community supervision, drug and alcohol testing, team decision making, and constitutional and legal issues in Drug Courts. New staff hires receive a formal orientation training on the Drug Court model and best practices in Drug Courts as soon as practicable after assuming their position and attend annual continuing education workshops thereafter." (NADCP 2013:39)

Box 13: Queensland Stakeholder and Consultation Feedback (Multi-disciplinary team)

- There needs to be a coordinated team that work cohesively and with a broad commitment to the underlying goals. Responsibility for leading this team often fell to the magistrate, but ideally there might be a sub-judicial coordinating body with the responsibility for managing the day-to-day affairs of the court.
- Corrective Services were lumbered with the administrative and practical responsibilities for managing the IDRO. This responsibility was sometimes in conflict with the goals of case management and motivational processes. The administrative coordination of orders and team-activities should be vested with a non-service delivery partner.
- Stakeholders expressed a preference for a central-coordinating agency that manages the court and court-process.
- The court could benefit from some involvement in the composition and selection of the drug court team. Maintenance of the drug philosophy, its attitude towards offenders with complex needs, and an understanding of drug treatment is essential.

Table 12: Multi-disciplinary team

Source	Method	Findings
Zweig et al. (2011)	Between-court , multi-site comparison of 23 drug courts. Courts were ranked relative to their success in reducing reoffending and substance use. The presence and nature of the multidisciplinary team was coded as a composite representing the number and frequency with which key drug court members were present at team meetings.	No differences were found for criminal justice or drug use outcomes when examined between courts with differing levels of involvement of a multidisciplinary team. This null effect was attributed to the limited variation between courts on this domain.
Carey, Mackin and Finigan (2012)	Between-court , multi-site comparison of 69 adult drug court evaluations conducted by NPC Research. Combined, the comparative analysis included data for 32,719 individuals (16,317 drug court participants and 16,402 comparison group members). Process evaluations were used to identify compliance across the key components. Recidivism was measured as the number of new arrests within two years of program commencement.	<p>Recidivism reductions were 87% greater in drug courts where law enforcement were identified as members of the drug court team. Additional benefits were obtained if law enforcement were active participants in drug court team meetings and where law enforcement representatives regularly attended status hearings and court reviews.</p> <p>Recidivism reductions were 50% greater in drug courts where the judge, both attorneys, treatment program coordinators and probation offenders attend drug court team meetings.</p> <p>Cost savings were 93% greater in drug courts where a defense attorney regularly attends drug court team meetings.</p> <p>Recidivism reductions were 119% greater in drug courts where treatment providers communicate regularly with the drug court team (even if by email).</p>
Source: Adapted from abstracts and article summaries		

Summary and key considerations

The non-adversarial and inter-disciplinary approach of the drug court is one of its key strengths and, where possible, multidisciplinary teams should be developed having representation from each of the key agencies – courts, corrections, health, legal aid, and police. There is limited evidence to support the specific involvement of any one particular member of the team, except perhaps the judicial officer who in the traditional drug court model plays a significant role in leading the court, motivating clients and arbitrating difficult decisions when interagency conflicts arise.

Taken as a whole, the information and evidence gathered in this review suggests that in the re-implementation of drug courts in Queensland, the following recommendations and guidelines should be considered:

1. The drug court team comprise membership of the judiciary, corrective services, health and treatment agencies, legal aid, and police prosecution.
2. Drug court team members be required to consistently attend pre-court team meetings and formal drug court hearings.
3. Administrative support, including the administration of the drug court program and individual drug court orders be undertaken by a JAG appointed drug court manager. The drug court manager needs to be a member of the drug court team and responsible for coordinating and managing the court's day-to-day administrative activities.
4. Where possible, representatives from external treatment agencies are afforded an opportunity to participate in the drug court team and share in the drug court's broader therapeutic and jurisprudential philosophy.
5. It is recognised that drug court team members are required to perform their duties in a non-traditional, non-adversarial and therapeutic environment. This requires dedicated personnel with both an interest in the philosophy of the court and skills necessary to operate in a non-traditional capacity. Nomination to the drug court team should require a selection process through which these skills can be formally tested.
6. All drug court team members are required to undertake training before joining the team and at regular intervals throughout their service.
7. Where new agency staff are invited or required to participate in the drug court team, a period of 'shadowing' (watching the practice of an existing team member) and formal training should be facilitated.

Drug testing

Mandatory drug testing is widely regarded as an essential component of the drug court model. Specifically, drug testing provides readily available and objective information to the judicial officer, other justice system officials, treatment practitioners and caseworkers about a participant's progress in treatment. The drug testing process, coupled with immediate responses to both positive and negative test results, encourages participants to address their substance abuse problems immediately and continuously throughout their participation. In the development of the OJP's 10 Key Components, the DCSC identified as essential that "abstinence is monitored by frequent alcohol and other drug testing" (Component 5). Specifically, the working group reported that:

"An accurate testing program is the most objective and efficient way to establish a framework for accountability and to gauge each participant's progress [and that] modern technology offers highly reliable testing to determine if an individual has recently used specific drugs... AOD testing results are objective measures of treatment effectiveness, as well as a source of important information for periodic review of treatment progress. AOD testing helps shape the ongoing interaction between the court and each participant. Timely and accurate test results promote frankness and honesty among all parties." (p11)

In the drug court model, the relationship between mandatory drug testing and program success is complex and multifaceted and an appreciation of this complexity is required to ensure that drug testing can be implemented to its greatest potential effect. Specifically, there are three rationales for the use of drug testing in the drug court:

- First, **drug testing provides insight into treatment progress.** The only reasonably objective method for monitoring an individual's progress in treatment is to test for recent use. However, under a purely therapeutic model, drug testing need only be as frequent as is required by the treatment plan and it should be negotiated with the client with the view to developing a trusted therapeutic relationship. A positive drug test should signal the need for further therapeutic responses, not punitive responses likely to undermine the therapeutic alliance.
- Second, **drug testing provides the only objective evidence of abstinence.** The vast majority of drug courts require abstinence as a necessary precondition of entry or ongoing participation. The reasons for this are many and varied, although the most compelling argument is that drug courts need to be satisfied that participants pose little or no risk to the community as a consequence of drug-specific economically-motivated offending. This 'guarantee' is an important component of the social contact that drug courts maintain with the wider community. Thus, the regularity and fidelity of drug testing must be such that it provides objective evidence to the court and, by extension, to the community, that these otherwise high-risk offenders are at little or no risk of reoffending for drug-related reasons.
- Finally, **drug testing signals the certainty and celerity of punishment, creating a framework of expectations and accountability.** Drug testing is one of the few mechanisms through which non-compliance of any kind can be monitored by the drug court regularly and with indisputable scientific accuracy. Drug testing, coupled with the court's ability to respond promptly to positive tests, thus forms a central part of a drug court's deterrence mechanism – signalling to the participant that criminal offences or other infractions will not be tolerated by the court.

Different drug court practitioners will likely ascribe more heavily to one of these core positions, and the differing of opinion between practitioners can raise a number of hurdles for the development of appropriate drug testing and monitoring policies in the drug court setting. In broad terms, there is a growing acceptance that drug-related relapse is a natural part of the recovery process, and that punitive responses can reverse earlier gains in treatment. Indeed, positive drug tests provide an important opportunity for additional therapeutic intervention, especially in the extent to which the experience of relapse can be an essential ingredient to the cognitive behavioural and relapse prevention training that underpins drug treatment. Yet, intentionally disregarding the authority of the court and, as a consequence, returning to a pattern of drug use which necessitates economically-motivated offending must be responded to immediately, and adequately.

Stakeholder feedback and interstate experiences

Stakeholder consultations conducted for this review indicated that drug testing through urinalysis was an essential and beneficial part of the former Queensland Drug Court program. Specifically, stakeholders noted that:

- The former program was originally supported by a dedicated drug testing van, capable of meeting clients at rehabilitation centres, residential locations and workplaces. The drug testing van was identified as critical to the feasibility of the drug courts regular and random testing schedule
- When the drug testing van was withdrawn from service in the later years of operation, the amount of testing and the integrity of the testing regime declined.
- There was the occasional duplication of drug testing in cases where participants were tested by the operators of a residential rehabilitation centre, in addition to Queensland Corrective Services. It was noted that, where possible, duplication should be avoided.
- If drug testing is to be performed by residential rehabilitation or drug treatment personnel, it is important that the testing agent understand and comply with the testing and reporting requirements of the court. The court and the participant must have at all times confidence in the integrity and fidelity of the testing process.

In the NSW Drug Court, drug testing is performed three times per week in phase 1, and twice per week in phases 2 and 3. In the majority of cases, maximum testing levels are resumed, four weeks prior to a participant's graduation. All urine tests are conducted by NSW Health nurses, underpinned by protocols to protect the integrity of the testing procedure and the chain of custody.

Box 14: Queensland Stakeholder and Consultation Feedback (Drug testing)

- Weekly attendance and urinalysis testing essential and beneficial.
- Model was diluted when urinalysis vans were removed.
- Possible that the responsibility for urinalysis testing could be vested with treatment providers, however a level of trust must be developed between the provider and the court (specifically including QCS).
- Inconsistency between the requirements of an order and the requirements of treatment facilities. It becomes difficult when clients are thrown out of rehabs for things that would not result in the termination or breach of the order, but where the absence of appropriate treatment options could result in termination. This is a difficult conceptual struggle. If the

application of an order is contingent on “capacity to treat” what happens when that capacity is removed as a result of rehab termination for non-breachable events?

Evidence-based key principles

Probity of Testing and Chain of Custody

Critical to the success of a drug testing regimen are a number of key factors, not least of which is to ensure probity of the testing and chain of custody procedures (ASAM, 2013; Cary, 2011; Meyer, 2011). In particular, it is essential that drug testing procedures conform to the relevant scientific standards (Benchmark 5.1) so that all parties to the drug court can be confident in the result and its use by the court for compliance management procedures. Importantly, where non-criminal justice agencies are involved, either at the point of collection or confirmatory testing, it is essential that best-practice standards are maintained with respect to the provision, screening, transportation and confirmatory testing of each sample, as required. As a core principle, no member of the drug court (including the participant themselves) should be left with any doubt as to the accuracy of a positive and negative drug test result. This requires adherence to sample collection procedures which eliminates doubt about the test outcome (Benchmark 5.4), such as:

- Direct observation of urine sample collection.
- Verification of temperature and measurement of creatinine levels to determine the extent of water loading.
- Specific, detailed, written procedures regarding all aspects of urine sample collection, sample analysis, and result reporting.
- A documented chain of custody for each sample collected.
- Quality control and quality assurance procedures for ensuring the integrity of the process.
- Procedures for verifying accuracy when drug test results are contested.

Frequent and Random Testing

It is generally the case that the more frequently drug testing is performed as part of the drug court program, the more effective the court will be at maximising graduation rates, lowering drug use (Gottfredson et al., 2007; Griffith et al., 2000) and reducing criminal recidivism (Harrell et al., 1998; Hawken & Kleiman, 2009; Grommon et al., 2012). Further, randomising the testing has proven essential to maintaining treatment compliance and abstinence (Grommon et al., 2011). In their review, the Drug Court Standards Committee make specific mention of the drug testing procedure, noting that “testing may [either] be administered randomly or at scheduled intervals... [but should occur] no less than twice a week during the first several months” and after which the “[f]requency will vary depending on participant progress” (Benchmark 5.2).

The importance of a credible and frequent drug testing regime is also a view typically shared by participants, particularly graduates of the drug court interviewed about their experiences (Gallagher et al., 2015; Goldkamp et al., 2002; Wolfer 2006; Fisher et al., 2007; Turner et al., 1999). In a recent study by Gallagher and colleagues (2015), for example, qualitative interviews with 41 drug court participants revealed the perceived importance of frequent drug testing as both a mechanism for deterring future drug use, but also as a means of helping to positively shape criminal and drug use thinking patterns. The process of being tested, although confronting, was conceptualised as an important cognitive and behavioural tool for maximising initial and early treatment engagement and, consequently, treatment success.

Similar conclusions were drawn by Goldkamp and colleagues (2002) in their qualitative focus group interviews with drug court participants across several US cities (Brooklyn, Las Vegas, Miami,

Portland, San Bernardino, and Seattle). Specifically, participants were cited as acknowledging the important role of frequent drug testing as a mechanism for encouraging participant compliance with treatment until such time as the treatment effect could be activated and sustained. For example, the authors found that:

“Drug court participants were consistent in arguing for regular, random, and observed drug testing. In sum, participants saw drug testing as the critical link between treatment and the court that provided an inescapable accountability.”
(Goldkamp et al. 2002)

Finally, Wolfer (2006) examined the exit interview transcripts of 55 graduates of the Pennsylvania drug court and concluded that while mandatory drug testing was positively regarded by drug court clients, this favourable regard was only likely something that was realised upon reflection at the time of graduation. Importantly, the author concludes that drug court participants are often unlikely to speak favourably of drug testing during their initial engagement with treatment (Battjes et al. 1999), but later recognise its importance in maintaining abstinence and program compliance.

Perhaps the most compelling evidence in support of frequent testing comes from a meta-study of 18 drug courts where Carey and colleagues (2008) found that longer-term criminal justice outcomes were more favourable for those courts whose initial treatment phases mandated the administration of drug tests at least twice per week. Specifically, the study found that although graduation rates were not significantly improved, drug courts with twice-weekly testing nevertheless yielded criminal recidivism reductions that were 38 percent greater, and cost savings that were 61 percent greater, than courts with less frequent testing regimens.

Not all meta-studies, however, find support direct support for a mandated schedule of high frequency drug testing. For example, in a comparison of 23 drug court evaluations, Zweig and colleagues (2011; 2012) found no statistical evidence that criminal justice outcomes were influenced by the average number of drug tests performed. In concluding, the authors argue that, since all courts conducted drug testing, and since the vast majority (19 of 23) of courts were the beneficiaries of the regular testing regimens, the absence of a statistical effect was the result of limited variability in the study. Importantly, as a greater number of drug courts move to improve their drug testing practices, the increasingly limited degree of between-court variability will make future analysis of best practice more challenging.

In a recent and wide-ranging qualitative review of the key components of drug courts, Hiller and colleagues (2010) identified regular drug testing as the program activity having the single highest rating of importance among 208 drug court coordinators. On a scale of 1/5, this diverse group of drug court practitioners collectively rated drug testing as the most important program component (4.7 out of 5).

Coupled with a frequent testing regimen, it is also ideal that drug testing be conducted randomly such that the likelihood of a forthcoming test is the same on any given day. Several studies, for example, have shown that drug testing is most effective when performed on a random basis (ASAM, 2013; ASAM, 2010; Auerbach, 2007; Carver, 2004; Cary, 2011; Harrell & Kleiman, 2002; McIntire et al., 2007) and where the odds of being tested are the same on weekends and holidays as they are on any other day of the week (Marlowe, 2012). Further, drug testing regimens should be designed to avoid what is often described as ‘respite from detection’ by ensuring that there are no long periods of time where there is a predictable absence of testing (Marlowe & Wong 2008).

Finally, underpinning the effectiveness of any system of random drug testing is the testing authority's ability to execute tests within a limited period of time following notification of the intent to test. In the drug treatment context, this requires a careful balance between testing requirements on the one hand, and the clients' reasonable need for time to meet other daily obligations on the other. In a comprehensive review of the medical and scientific literature, Auerbach (2007) recommends that, to ensure metabolite concentrations do not fall below cut-off levels, participants be tested as soon as practicable, but within no more than eight hours after being notified that a test has been scheduled. According to the American Society of Addiction Medicine, limiting the time delay between notification of an impending drug or alcohol test and the collection of the test specimen is essential to a successful system of random drug testing for compliance purposes (ASAM, 2013).

Rapid results

Although frequent and random drug testing have been shown to be important to the success of drug courts, the efficacy of these two elements may depend largely on the court's ability to respond rapidly when a test is returned positive. According to the OJP, maintaining the integrity of the drug testing procedure is just one necessary element to an effective drug testing regimen. In addition, it is argued that a "drug court functions best when it can respond immediately to noncompliance" (Benchmark 5.5) through a "coordinated strategy ... [that] includes prompt responses to positive tests, missed tests, and fraudulent tests" (Benchmark 5.6). Described as 'ideal', the DCSC suggests that test results be communicated to the drug court as soon as is practicable, although preferably "within one day" (Benchmark 5.5). A further and equally important requirement identified by the DCSC is the expedient reporting of client-level non-compliance with drug testing. In particular, it is suggested that a drug court must be notified immediately if a participant "has failed to submit to testing, has submitted the sample of another, or has adulterated a sample" (Benchmark 5.6).

For experts in behavioural modification techniques, the timing of feedback has been shown to be among the most influential of factors (Harrell & Roman, 2001; Marlowe & Kirby, 1999). The DCSC has suggested that negative test results should take no longer than one business day to produce, and positive results should require no more than two days if confirmation testing is requested (Cary, 2011; Robinson & Jones, 2000).

In an experimental study of the importance of rapid drug testing, Grommon and colleagues (2012) examined long term drug treatment and criminal recidivism outcomes for 529 offenders released on parole. The study's experimental group received frequent, random drug testing with instant results, immediate sanctions, and referral for substance abuse treatment. The control group also received frequent, random drug testing and treatment referral, but did not receive immediate test results or immediate sanctions. In their comparative analysis, the authors concluded that parolees who received immediate sanctions for drug use—made possible only by the availability of instant test results—had more favourable long term outcomes than parolees who, although similarly subjected to random and frequent drug testing, did not receive instant results and were not subjected to immediate sanctions for drug use.

These results have received broad support in the drug court literature, including in the meta studies conducted by Carey and colleagues (2008; 2012). In the first of these meta-studies, it was found that both graduation and long-term recidivism rates were more favourable in drug courts where drug testing results, in particular positive results, were typically reported back to the court for actioning within 48 hours. In the second study, conducted with a larger sample of drug court evaluations (N=68), Carey and colleagues (2012) reconfirmed the particular importance of the

expeditious return of drug test results, once again showing that more favourable recidivism outcomes could be achieved by those drug courts where test results were returned within 48 hours. Importantly, these more favourable outcomes then translated into cost savings, estimated to be 68 percent greater than for courts unable to benefit from rapid drug testing services.

Duration of testing

For behavioural modification programs it is generally considered best practice that the effects of any intervention be assessed in an ongoing manner until such time all components of the intervention have been completed (Rusch & Kazdin, 1981). For drug courts, urinalysis testing is the principal tool for assessing treatment engagement and efficacy and should, therefore, be maintained for the complete period of participation—from entry to graduation. As has been recommended by the Drug Court Standards Committee, with the reduction of other drug court services comes the “ever-present risk of relapse or other behavioural setbacks”. This means that uninterrupted drug testing should be used to reveal relapse and encourage ongoing compliance, especially (but not limited to) during those periods where a participant’s treatment regimen is to be adjusted (see Cary, 2011; Marlowe, 2011, 2012).

Importantly, drug testing should be maintained as a consistent and ongoing practice at least until such time as the participant has completed all relevant drug treatment programs and is maintaining drug abstinence under circumstances consistent with what would be otherwise expected after program graduation. For most drug courts, this is likely to encompass the entire period of participation.

“Although research has not addressed this issue specifically, logic dictates that maintaining a schedule of drug testing until participants are engaged in what will ultimately be their continuing-care or aftercare plan. This practice provides the greatest assurance that participants are likely to remain abstinent after program graduation.” (NADCP)

On the question of pre-graduation drug testing and abstinence, meta studies have shown that rates of recidivism and their associated costs to the criminal justice system are typically lower in drug courts that require at least 90 days of verified abstinence before program completion/ graduation (Carey et al., 2008). This is consistent with the OJP’s view that a substantial period of abstinence is a necessary goal for successful completion of a drug court program (Benchmark 5.7).

Breadth of testing

The integrity of any drug testing program will depend largely on its ability and capacity to identify the full range of substances likely to be used by participants in the program, including potential psychoactive substitutes. Without an appropriate and sufficient breadth of testing (as is often the case on limited drug testing equipment and screening panels), participants can evade detection for their substance use simply by switching to other drugs of abuse (ASAM, 2013). Heroin users, for example, can often avoid detection by using pharmaceutical opioids, such as oxycodone or buprenorphine (see Wish et al., 2012), while marijuana users have been known to temporarily substitute with those synthetic cannabinoids specifically developed for purposes of avoiding detection (Cary, 2014; Castaneto et al., 2014; Perrone et al., 2013).

According to the National Drug Court Standards “the scope of testing [should be] sufficiently broad to detect the participant’s primary drug of choice as well as other potential drugs of abuse, including alcohol” (Benchmark 5.3). Therefore, where the potential for drug substitution exists, it is imperative that drug courts select testing procedures that have the capacity to identify a sufficiently

wide range of potential drugs and their psychoactive substitutes. Further, drug courts must maintain currency in testing, ensuring that new and emerging drug types, including synthetic and other designer drug types can be detected (ASAM, 2013).

Witnessed collection

Attempted adulteration of drug testing samples is an inevitable consequence of mandated drug testing in the criminal justice system. Studies have consistently shown that drug court participants will engage in sometimes elaborate efforts to cheat their drug and alcohol tests (Goldkamp et al., 2002). This includes: (a) the practice of ‘flushing’ one’s body by the consumption of excessive water in an effort to dilute the urine sample; (b) the adulteration of one’s sample with chemicals intended to disguise or impede the detection of recent drug use; or (c) the substitution of one’s sample with either artificial urine, real urine from another non-drug user, or with samples that are intended to appear consistent with urine, such as apple juice (Cary, 2011; McIntire & Lessenger, 2007; Goldkamp et al., 2002).

According to the American Society for Addiction Medicine, the most effective means of avoiding dilution, adulteration or substitution is to ensure that sample collection is witnessed directly by trained and experienced drug testing practitioners of the same gender as the participant (ASAM, 2013; Cary, 2011). Further, where fraudulent activity is suspected, it is essential that a new sample is collected immediately under closely monitored conditions (McIntire et al., 2007).

Maintaining technological currency and adequate staff training

Drug testing procedures must be current and consistent with evolving best-practice and scientific standards. Specifically, those responsible for the administration of drug testing must remain vigilant, up-to-date and informed of common and newly emerging adulteration practices. To do this requires a commitment to the ongoing training and education of those charged with the responsibility of drug testing as part of a drug court program.

Developing a participant contract

As has been shown in drug-court meta-studies, the best performing programs are those that clearly articulate their policies and procedures in a participant manual or handbook (Carey et al., 2012). This includes, in particular, the drug testing procedures and court-based responses to positive drug tests. The benefits of doing so are two-fold. First, drug court participants are significantly more likely to react favourably to an adverse outcome (a sanction for positive drug use) if they were given advance notice about how such judgments will be made (Burke & Leben, 2007; Frazer, 2006; Tyler, 2007). Second, drug courts may reduce avoidable delays and costs, especially by reducing the number of contested drug and alcohol tests, by ensuring that testing procedures and requirements are described in detail to participants and are enshrined in a participant contract or program handbook (see Box 15).

Box 15: Example participant contract (NADCP)

- Drug and alcohol testing will be performed frequently and on a random basis throughout your enrolment in the Drug Court.
- Drug and alcohol testing will be performed on weekends and holidays.
- Drug and alcohol testing will be performed by a laboratory or program approved by the Drug Court.
- Because cannabinoids (a by-product of marijuana) may persist in the body for several days, marijuana users have a two-week grace period following enrolment during which no

sanctions will be given for positive cannabinoid test results. However, after two week's positive cannabinoid tests will be presumed to reflect new marijuana use. Participants bear the burden of establishing a convincing alternative explanation for such results. After you have had two consecutive cannabinoid-negative urine specimens, the Drug Court will presume that subsequent positive cannabinoid results reflect new use.

- You must arrive at the testing facility as soon as possible after being notified that a test has been scheduled. You will be sanctioned for an unexcused failure to arrive within eight hours of being notified that a urine test has been scheduled or within four hours for tests that have short detection windows, such as breath or oral fluid tests.
- A staff person will directly observe the collection of test specimens. The staff person will be the same gender as you unless you, your defence attorney or your therapist request otherwise.
- Failure to provide a test specimen or providing an insufficient volume of fluid for analysis is an infraction of the rules of the program and will be sanctioned accordingly. You will be given a sufficient time (up to one hour) to deliver a urine specimen and allowed to drink up to one cup of water in the presence of staff.
- You may not drink any fluid excessively before testing and must avoid environmental contaminants, over-the-counter medications, or foods that can reduce the accuracy of the tests. Potential contaminants that you need to avoid are [provide list of contaminants].
- You may be subjected to immediate spot testing if the Drug Court has reason to suspect recent use or during high-risk times such as weekends or holidays.
- You have the right to challenge the results of a screening test and to request proof that an adequate chain of custody was established for your specimen. The Drug Court will rely on the results of an instrumented or laboratory-based test in confirming whether substance use has occurred. You may be charged the cost of the confirmation test if a screening test is confirmed.
- You will be sanctioned for providing diluted, adulterated, or substituted test specimens. Urine specimens below 90° F, above 100° F, or that have a creatinine level below 20 mg/dL will be presumed to be diluted or fraudulent. Participants bear the burden of establishing a convincing alternative explanation for such results. Under such circumstances, you may receive two sanctions, one for the substance use and one for the effort at deception.
- You will be sanctioned for using synthetic substances such as K2 or Spice that are designed to avoid detection by standard drug tests. Switching to a new substance of abuse (for example, switching from heroin to an unauthorized prescription opioid) will be presumed to be an effort to defraud the drug test. You may receive two sanctions in such circumstances, one for the substance use and one for the effort at deception.
- You will be sanctioned for associating with other people who are engaged in substance use or for exposing yourself to passive inhalation or second hand smoke.

Table 13: Drug testing – Key studies and findings

Source	Method	Findings
Grommon et al., 2012	The sample consisted of 529 offenders released on parole. An experimental design with random assignment to one of three groups was employed. The Experimental Group received frequent, random drug testing with instant results, immediate sanctions, and referral for substance abuse treatment. Control Group I received frequent, random drug testing and treatment referral, but did not receive immediate test results or immediate sanctions. Control Group II followed standard parole practice. Members of this group were not tested on a random basis and did not receive immediate sanctions. Repeated measures ANOVA and survival analysis techniques were used to explore group differences.	Frequent monitoring of drug use with randomized testing protocols, immediate feedback, and certain consequences is effective in lowering rates of relapse and recidivism. The effectiveness is particularly salient in the short term during the period of exposure to testing conditions.
Zweig et al. (2011)	Between-court , multi-site comparison of 23 drug courts. Courts were ranked relative to their success in reducing reoffending and substance use. Drug testing was ranked according to the frequency of testing: more than once a week, once a week, less than once a week.	No differences were found for criminal justice or drug use outcomes when examined between courts with differing levels of drug testing. This null result was attributed to the limited variation between courts on this domain.
Carey et al (2008)	Between-court , multi-site comparison of 18 adult drug court evaluations conducted by NPC Research.	<p>Recidivism outcomes and their associated cost savings were more favourable in courts where:</p> <ul style="list-style-type: none"> • In the first phase of drug court, tests are collected at least 2 times per week; • Drug court staff usually receive the drug test results within 48 hours; and • The drug court expects a client to have greater than 90 days of negative drug tests before graduation. <p>Graduation outcomes were more favourable in drug courts where:</p> <ul style="list-style-type: none"> • The drug court expects a client to have greater than 90 days of negative drug tests before graduation.
Carey, Mackin and Finigan (2012)	Between-court , multi-site comparison of 69 adult drug court evaluations conducted by NPC Research. Combined, the comparative analysis included data for 32,719 individuals (16,317 drug court participants and 16,402 comparison group members). Process evaluations were used to identify compliance across the key components. Recidivism was measured as the number of new arrests within two years of program commencement.	<p>The reduction in recidivism was:</p> <ul style="list-style-type: none"> • 73% greater for drug courts where drug test results were returned within 48 hours. • 164% greater for drug courts where participants were expected to be abstinent for greater than 90 days before graduation – although this result was indicative of a trend only. <p>Cost savings were:</p>

Table 13: Drug testing – Key studies and findings		
Source	Method	Findings
		<ul style="list-style-type: none"> • 68% greater for drug courts in which drug test results were returned within 48 hours. • 61% greater for drug courts where drug tests were conducted at least twice per week – although this result was indicative of a trend only. • 50% greater for drug courts where participants were expected to be abstinent for greater than 90 days before graduation.
Gottfredson et al. (2007)	Between-individual analysis of follow-up outcomes for 157 offenders randomly allocated to the drug court (or a control condition) as part of the Baltimore City Drug Treatment Court.	The frequency of drug testing was significantly associated with a reduction in multiple drug use, but not a reduction in rates of offending.
Rossman et al (2011)	Using a three-staged interview (0, 6 and 18 months) of 1,259 respondents from 29 drug court locations, the between-court and between-individual effects of the drug court on criminal offending outcomes were examined using a multi-level structural equation model.	Criminal justice outcomes were more favourable for courts where drug testing was performed more often than once per week.
Source: Adapted from abstracts and article summaries		

Summary and conclusion

Key features - What does the research evidence say?

Drug testing is an essential feature of any drug court program and is almost universally recognised as key to both individual-level and court-level success. Evaluation results have consistently recognised that, without drug testing, drug courts would be significantly less successful in navigating high-need offenders through drug treatment. Importantly, drug testing serves the drug court model in a two ways. First, it provides participants and the drug court team information and feedback on treatment progress – indicating where treatment is working successfully, or if not, where modifications to the treatment plan may be required. This is essential if early intervention is to be successful for participants who are struggling to adjust to a drug-free lifestyle. Second, drug testing forms a critical component of a drug court's broader deterrence capabilities, signalling to participants the importance of compliance and the swift and certain responses to non-compliance. Since most other antisocial and criminal behaviour remains hard to detect by the court, drug testing is one of the few mechanisms with which the court can impose certain and swift consequences.

According to Payne et al., (2016), drug court evaluations have isolated five key drug testing components that are associated with more favourable drug court outcomes. These are as follows:

Frequent testing

Research has found the more frequently drug testing is performed as part of the drug court program, the more effective the court will be at maximising graduation rates, lowering drug use and

reducing criminal recidivism (Banks & Gottfredson, 2003; Gottfredson et al., 2007; Griffith et al., 2000; Harrell et al., 1998; Hawken & Kleiman, 2009; Kinlock et al., 2013; National Institute on Drug Abuse, 2006). According to Carey and colleagues (2008), although graduation rates are not significantly higher for courts with more frequent drug testing, twice-weekly testing (or more) can yield criminal recidivism reductions that are approximately 38 percent greater, and cost savings that are approximately 61 percent greater, than courts with less frequent testing regimens.

Random testing

Several studies, for example, have shown that drug testing is most effective when performed on a random basis (ASAM, 2013; ASAM, 2010; Auerbach, 2007; Carver, 2004; Cary, 2011; Harrell & Kleiman, 2002; McIntire et al., 2007) and where the odds of being tested are the same on weekends and holidays as they are on any other day of the week (Marlowe, 2012). Further, drug testing regimens should be designed to avoid what is often described as ‘respite from detection’ by ensuring that there are no long periods of time where there is a predictable absence of testing (Marlowe and Wong 2008).

Sufficient breadth of testing

Without an appropriate and sufficient breadth of testing (as is often the case on limited drug testing equipment and screening panels), participants can evade detection for their substance use simply by switching to other drugs of abuse (ASAM, 2013). Heroin users, for example, can often avoid detection by using pharmaceutical opioids, such as oxycodone or buprenorphine (see Wish et al., 2012), while marijuana users have been known to temporarily substitute (Perrone et al., 2013) with those synthetic cannabinoids specifically developed for purposes of avoiding detection (Cary, 2014; Castaneto et al., 2014). Where the potential for drug substitution exists, it is imperative that drug courts select testing procedures that have the capacity to identify a sufficiently wide range of potential drugs and their psychoactive substitutes.

Rapid results

The efficacy of frequent and random drug testing may depend largely on the court’s ability to respond rapidly when a test is positive. For experts in behavioural modification, timing has been shown to be among the most influential factors (Harrell & Roman, 2001; Marlowe & Kirby, 1999). Carey and colleagues (2008) found that both graduation and long-term recidivism rates were more favourable in drug courts where the results of a drug test were typically reported back within 48 hours.

Mandating pre-graduation abstinence

A trend analysis conducted by Carey and colleagues (2012) provided indicative evidence that abstinence was an important goal for at least the last 90 days of program participation. Consistent with this, some drug court programs (including the NSW Drug Court) may elect to increase the frequency of testing in the weeks prior to final graduation.

Implementation – what does the research evidence say?

An effective drug testing regime, one that is both frequent and random, can only be effective if supported by a solid implementation framework that meets the needs of both the court and the participants. Importantly, the implementation framework must be accompanied by clear objectives and expectations with respect to the conduct, handling and use of drug testing outcomes within the drug court procedure. According to Payne et al., (2016), when drawn together the evaluation evidence and best practice literature identifies a number of key ingredients to the implementation of a successful drug testing within the drug court context. These are as follows.

Maintaining the integrity of the process

The reliability of a drug court drug testing system is dependent upon sample integrity. To ensure sample integrity, effective techniques must be instituted and practiced regarding sample collection (ASAM, 2013; Cary, 2011; Meyer, 2011). Specifically, this requires adherence to sample collection procedures which eliminates doubt about the test outcome (NADCP Benchmark 5.4), such as:

- Direct observation of urine sample collection.
- Verification of temperature and measurement of creatinine levels to determine the extent of water loading.
- Specific, detailed, written procedures regarding all aspects of urine sample collection, sample analysis, and result reporting.
- A documented chain of custody for each sample collected.
- Quality control and quality assurance procedures for ensuring the integrity of the process.
- Procedures for verifying accuracy when drug test results are contested.
- Policies and procedures which anticipate situations and develop responses to the possibility of false-positive tests.

Educate and train everyone involved about the process and procedures

Drug testing procedures must be current and consistent with evolving best-practice and scientific standards. Specifically, those responsible for the administration of drug testing must remain vigilant, up-to-date and informed of common and newly emerging adulteration practices. To do this requires a commitment to the ongoing training and education of those charged with the responsibility of drug testing as part of a drug court program.

Develop contracts with participants that increase responsibility for eliminating situations that challenge the test results

Drug courts should develop contracts with participants regarding expectation in relation to behaviour that may affect drug testing results. As has been shown in drug-court meta-studies, the best performing programs are those that clearly articulate their policies and procedures in a participant manual or handbook (Carey et al., 2012).

Recommendations

Underpinning the reestablishment of drug courts in Queensland, the following recommendations should be considered:

- 1) In order for drug testing to achieve its deterrent capabilities:
 - a. drug testing must be conducted frequently enough to ensure that any new use is detectable. This will depend on the testing method, however for urinalysis, testing should be conducted no less than three times per week in the first phase.
 - b. testing should be conducted randomly so that, from the participant's perspective, the probability of being tested is the same on every day of the week. There should be no periods of time for which there is a predictable absence of testing.
 - c. random testing should be conducted as soon possible after notification to the participant – ideally within no more than eight hours. Random testing, in particular during the later phases of the drug court, should not interrupt a participant's education and employment obligations.

- d. drug testing should be conducted for the entire duration of the drug court order, although frequency of testing may be tapered according to a participant's level of progress. Of all the compliance mechanisms available to the drug court, drug testing should be the last mechanism to be formally withdrawn (if at all).
- e. testing equipment and procedures must conform with current scientific standards and have sufficient breadth to detect a participant's drug of choice, common substitutes (including synthetic drugs), and other commonly available drug types.
- f. testing procedures must be organised to prevent where practicable dilution, adulteration and substitution of samples. This should include a process of witnessed collection, and retesting procedures if fraudulent activity is suspected.
- g. the results of a drug test should be reported to the court as quickly as is practicable – ideally within no less than 48 hours. The response of the drug court, in terms of sanctioning and treatment plan revisions, should follow immediately.

2) To maintain an effective drug testing program:

- a. testing personnel must be adequately trained in sample collection, testing, storage and chain of custody requirements. Drug testing personnel should also be actively engaged in training and education programs that ensure they are informed of emerging adulteration practices, technological practices and/or emerging drug types.
- b. witnessed collection must be undertaken by a person of the same gender as the participant.
- c. the drug court magistrate and team must have full confidence in the testing process and procedure. Where concerns emerge about the fidelity of the testing program, this has the potential to undermine the utility of testing and creates fractures between drug court team members.
- d. testing should only be conducted by a third party (treatment provider or other agency) where there is a contractual arrangement that ensures the drug court team of the fidelity of the testing procedure.
- e. the drug court participant must have full confidence in the fidelity of the testing procedure and, more importantly, understand the range of responses or consequences the court will impose. The range of sanctions used by the court to the provision of a positive test should be clearly articulated to participants at the time of referral.

Court appearances

Drug courts are, by their very nature, an innovation of the criminal court system, designed principally in the Australian context as an alternative to custody for criminal offenders affected by drug dependency. Consequently, the court itself has played a significant historical role in the administration and operation of drug courts, with judicial officers leading drug court teams and spearheading campaigns for local policy and public support.

Not surprisingly, therefore, the role of the court has been the subject of considerable empirical and theoretical research, all of which has been broadly dedicated to understanding whether and why the court itself is an essential feature of drug courts and what causal mechanisms might help to explain the apparently strong influence of judicial officers and judicial status hearings on the likely success of drug court clients.

At the outset, it is important to acknowledge that there are few, if any, alternatives to the use of criminal courts as the foundational institution of a drug court program. There are those who argue that drug treatment is better severed in a non-criminal-justice setting, but as interventions designed for high-risk and high-need offenders, the criminal justice foundation of drug courts necessarily requires the sentencing and decision making authority of a judicial officer. To achieve this, drug court matters must be heard and adjudicated in a criminal court setting – typically a court room or case conferencing location. The question underlying this review is not, therefore, whether there are non-criminal justice alternatives to drug courts, but rather, what type and level of involvement should the criminal courts play in case-managing and monitoring high-risk offenders undergoing treatment.

Among drug court practitioners, there seems to be an overwhelming consensus that the regular judicial monitoring of clients is essential to a drug court's success. According to the Drug Court Standards Committee, the integration of alcohol and other drug treatment with justice system case processing (Key Component 1), coupled with ongoing judicial interaction with each drug court participant (Key Component 7) are critical and essential features. Principally, regular court appearances (Benchmark 7.1) are considered important in that they offer the judicial officer and treatment providers an environment that facilitates ongoing communication and timely exchanges of accurate information about each individual participant's overall performance (Benchmark 1.4) – an environment in which the judicial officer should play an active role in the treatment process, including frequently reviewing treatment progress (Benchmark 1.5).

According to a recent review by Hiller and colleagues (2010), a series of 'importance ratings' were developed as part of a Drug Court Components Questionnaire and later delivered to US-wide random selection and survey of 208 drug court coordinators. That 'participants attend regular status/review hearings with the judge' was identified as the third highest rated component (of 27 possible components), having received an average importance rating of 4.5 out of five.

The collective experience of drug-court practitioners (Hiller et al., 2010) makes for a powerful argument in favour of the use of judicial status hearings as a core component of the drug court model. Indeed, there appears to some broad agreement that judicial status hearings should be both frequent and regular, especially in the early phases of a client's participation. Fortunately, it now appears that this enthusiasm has been met with evaluation evidence that more favourable outcomes are achieved by those drug courts in which a frequent and regular schedule of court appearance is mandated.

In one of the earliest meta-analytic reviews by Carey et al. (2008), the graduation and cost-benefit outcomes of 18 separate adult drug court programs were compared. Specifically, process evaluation data was used to identify key drug court activities from which the variability between courts was then examined with respect to their differences in overall graduation and cost-benefit outcomes. With regard to judicial status hearings, the study found that long-term cost-savings (including reductions in reoffending) were more appreciable for courts where participants in their first phase were required to appear before a judge at least once every two weeks. Further, long term outcomes were also more favourable for those drug courts in which final-phase participants were required to maintain some form of regular contact (once a month) with the judge. Neither of these two factors, however, predicted higher rates of graduation.

In the multi-site comparison of drug courts by Zweig and colleagues (2011), each of 23 separate courts was ranked according to the nominal frequency of a client's attendance at judicial status hearings; whether they occurred once a week, once a fortnight or once a month. The analysis of recidivism and substance use outcomes across all 23 locations revealed no apparent benefit of mandating clients to a more frequent or regular court appearance schedule, although this null finding was attributed by the authors to the insufficient variability that existed within the group of courts that was selected.

In a separate analysis of the same 23 drug courts, Zweig and colleagues (2012) developed a series of composite measures in an effort to capture variability between courts in their conceptual application of the drug court key principles, rather than differences in specific drug-court activity types. Among these, the regularity of attendance at judicial status hearings was used as an indicator of leverage, which, when compared between courts, was statistically associated with more favourable criminal justice outcomes. Specifically, the courts most effective in preventing reoffending were those which maintained a moderate or high degree of leverage over their clients.

Finally, in the meta-study of 125 drug courts by Carey and colleagues (2012), recidivism and cost-benefit outcomes were compared and cross-analysed by between-court variability in key drug court activities. On the issue of judicial status hearings, the results showed that recidivism reductions were 48 percent greater for those drug courts in which clients were required to attend court at least once every two weeks in the first phase. Further, a considerable improvement in recidivism was found for those courts in which the drug court judge spent at least three minutes with each client at each hearing, noting that there was general linear relationship between the time spent with clients and the relative effectiveness of the programs under consideration.

To explore further the relationship between the frequency of status hearings and individual-level drug court outcomes, Douglas Marlowe and colleagues (2002) set out to conduct a randomised controlled experiment in which the mandated schedule of status hearings was manipulated in two conditions. In the first condition, drug court clients were required to attend 'bi-weekly' status hearings (one hearing every two weeks) whereas, in the second condition, drug court clients were required to attend judicial status hearings only where requested by the judge, the client's case manager or their treatment provider (the 'as needed condition'). All other program components, such as the nature and intensity of treatment, case management, weekly random urinalysis testing, and sanctions and rewards were equally available to clients in both conditions.

In their first published analysis of their data, Marlowe et al., (2002) examined a series of key during-program outcomes at 14 weeks (a period during which very few clients had yet been terminated from the program). According to the authors, comparative analysis revealed no significant differences between those mandated to attend bi-weekly status hearings and those required to

attend only as requested. Specifically, both groups reported equal rates of attendance to counselling, provided an equal number of drug-free urinalysis specimens and self-reported a roughly equal prevalence of both substance use and criminal activity (Marlowe et al. 2002). For all intents and purposes, it seemed that the 'dosage rate' of judicial status hearings had little or no impact on client engagement, at least in the early phases of their participation.

In a follow-up study released in the same year, Marlowe and colleagues (2002) sought to examine whether the rate of graduation varied significantly between the two experimental conditions. They found that graduation from the drug court was more common for those who attended court only 'as needed' (58%) compared to those mandated to attend bi-weekly hearings (49%), although this difference was not statistically significant. In their conclusion, the authors note that part of the difference between the two groups was attributable to the disproportionate attrition of clients from the bi-weekly condition, a result of what they described as "substantially more onerous time demands" (Marlowe et al., 2002:154).

As the first within-site experimental study, these initial investigations by Marlowe and colleagues appeared to contradict the expectations of drug-court specialists and advocates of therapeutic jurisprudence. As earlier noted, judicial status hearings have been earmarked as a key and essential feature of the drug court philosophy – one of a number of features which is seen as a critical differentiation from other intensive probation and supervision programs.

Although Marlowe et al., (2002) concluded that the frequency of judicial status hearings had little or no impact on client outcomes, they later hypothesised that a null finding for the 'main effect' was potentially mediated by a number of important interactions. In other words, while the frequency and schedule of judicial status hearings might not yield significant differences between two average clients, some types of clients might benefit more than others from the increased appearance before the court. To test this, Marlowe et al., (2002) examined possible interaction effects for a variety of key demographic variables, concluding that the finding of 'no difference' across the full range of program outcomes was not mediated by a client's age, race, gender, marital status, employment status, years of education, drug use severity or legal severity.

Notably, however, clients assessed as having met the DSM-IV criteria for antisocial personality disorder (APD) produced a higher number of drug-free urinalysis tests if assigned to a more intensive schedule of judicial status hearings. Conversely, those not assessed as having APD performed less favourably under the more intensive program of appearances. In addition to the apparent interaction effect between APD and the scheduling of judicial status hearings, Marlowe et al., (2002) also found that clients with a history of prior (but presumably failed) treatment performed more favourably when assigned to bi-weekly judicial hearings, especially with respect to their maintenance of abstinence and their compliance with drug court ordered treatment. These results were later replicated in two additional misdemeanour courts (Marlowe, Festinger & Lee 2003)

In concluding this experimental analysis, the first of its kind in the drug court literature, the authors note that for the average drug court client, the 'dosage' of judicial supervision may add little to the overall success of a drug court program. Importantly, this suggests that mandating clients to attend the court more often than is warranted or needed by the drug court team will not necessarily produce more favourable treatment and intervention outcomes – especially if the opportunity to incentivise and reward positive progress in treatment can be facilitated through mechanisms which don't necessitate the involvement of a judicial officer. It seems, for most clients, the benefit of a judicial hearing may have more to do with the nature of the process and its therapeutic content, rather than its frequency. The exception to this rule, it appears, is for those clients who are at the

highest risk – which in Marlowe et al.'s (2002) study has been captured and operationalised as the presence of APD, or a history of previous failure in treatment.

Some three years later, a follow-up analysis by Marlowe et al. (2005) was presented in which the 6 and 12 month outcomes were examined for both the high (bi-weekly) and low (as-needed) intensity judicial supervision conditions. Notably, the analysis produced no significant differences across a range of self-reported and official program indicators, including drug use, alcohol intoxication, criminal activities, criminal charges, employment problems, psychiatric problems, or social and familial problems. Further, despite earlier analysis suggesting that higher risk offenders performed more favourably under intensive judicial supervision, it seems these effects were not sustained after a client's contact with formal treatment services had ended.

In a later series of studies, the researchers also sought to test the hypothesis that more favourable drug court outcomes could be achieved if intensive judicial supervision could be targeted to offenders prospectively identified as high-risk (Marlowe, Festinger, Dugosh, Lee & Denasutti 2006; 2007). In these studies, drug court clients were randomly assigned into matched and unmatched groups. In the matched group, high-risk offenders were assigned to bi-weekly judicial hearings, while low risk offenders were allocated to attend judicial hearings as-needed. In the unmatched group, both high and low-risk clients were required to attend a judicial status hearing on a schedule of one hearing every four to six weeks - the regular schedule for supervision as usual in the Delaware Drug Court. In their preliminary findings (Marlowe et al. 2006) the authors showed that high-risk offenders in the matched condition had significantly fewer episodes of drug use than their high-risk peers receiving supervision as usual. In follow-up analyses of overall program outcomes (Marlowe et al. 2007), the authors concluded that high-risk participants receiving intensive judicial supervision were also more likely to graduate from the program and reported fewer family problems at follow-up than those high-risk participants in the unmatched group receiving supervision as usual. Notably, the level of supervision had little to no impact on low-risk clients, confirming that lower levels of judicial supervision for these offenders seem not to adversely affect treatment outcomes.

Taken together, the consecutive series of studies conducted in the Delaware Drug Court raise a number of important questions and implications for the development and implementation of new drug courts. First, requiring a client to appear before a judicial officer more frequently seems not to help their progress and/or engagement in treatment. Importantly, though, it seems not to necessarily harm a client's progress unless a more frequent attendance regimen unwittingly exposes the client to greater opportunities for infraction, sanction, and possible termination (see Long and Sullivan 2016). Second, beyond the average effect, it seems that requiring relatively lower-risk clients (as a subset of possible drug court clients) to attend court often can be counterproductive to their treatment, especially if the burden of their court appearance schedule interferes with other day-to-day activities and functions, such as education and employment. Finally, it appears that clients at high risk of reoffending and/or those who at high-risk of treatment failure will perform more favourably under intensive regimens of judicial supervision, but only during the first phases of the treatment program. After this initial 'positive' effect, it seems likely that the absence of appropriate after-care and transitional arrangements can undermine any potential benefits obtained by a high intensity program of frequent and mandated court appearances.

From an Australian perspective, the efforts by Marlowe and his colleagues are both informative and instructive, but significantly limited. Chief among these limitations is that each study was conducted with clients of a misdemeanour drug court, meaning that entering the court (and the studies themselves) was a cohort of clients which might be considered less serious than those normally

appearing before Australian drug courts. As highlighted by Jones (2013), misdemeanour drug courts, like the one in Delaware, typically receive clients convicted of minor drug or paraphernalia possession offences who are, therefore, considerably less serious than the recidivist burglary or fraud offender seen commonly in the jurisdiction of Australian drug courts. Although Marlowe's work highlights the potential benefits of intensive supervision for high-risk offenders, the baseline supervision regimen for newly commencing clients in a misdemeanour court is relatively low (one hearing every four to six weeks) compared to the much more intensive model that has been broadly adopted in Australia. In fact, in most Australian jurisdictions, drug court clients have traditionally initiated their drug court program with a more intensive and frequent supervision schedule (once per week) than even the highest level of intensity (bi-weekly) utilised in the Delaware experiments.

Whether similar short term benefits could be achieved by intensive judicial supervision in a drug court where the supervision-as-usual already exceeded conventional US standards was a key question guiding the more recent investigation by Jones (2013). Using data from a randomised trial in the New South Wales Drug Court, Jones (2013) examined whether twice-weekly judicial status hearings produced more favourable client outcomes when compared to those clients who were subject to supervision-as-usual. The results indicated that more intensive judicial supervision resulted in more favourable outcomes for drug court clients, in particular a reduction in substance use and sanction rates. Although much of the analysis by Jones (2013) was limited by low statistical power, the odds of returning a positive urine sample and the rate at which sanctions were accrued were nevertheless significantly lower for clients undergoing more intensive supervision – down by approximately half compared to clients undergoing supervision as usual. In concluding, Jones (2013) argues that these and the Delaware results, when taken together, “provide sufficient justification to make intensive supervision a regular part of a drug court's policy in the early phases” (2013:466).

Table 14: Key research outcomes – judicial status hearings		
Source	Method	Findings
Zweig et al. (2011)	Between-court , multi-site comparison of 23 drug courts. Courts were ranked relative to their success in reducing reoffending and substance use. Judicial status hearings were ranked according their frequency: once per week, once a fortnight, once a month.	No differences were found for criminal justice or drug use outcomes when examined between courts with differing frequencies of judicial status hearings. This null result was attributed to the limited variation between courts on this domain.
Carey, Mackin and Finigan (2012)	Between-court , multi-site comparison of 69 adult drug court evaluations conducted by NPC Research. Combined, the comparative analysis included data for 32,719 individuals (16,317 drug court participants and 16,402 comparison group members). Process evaluations were used to identify compliance across the key components. Recidivism was measured as the number of new arrests within two years of program commencement.	<ul style="list-style-type: none"> Recidivism reductions were 153% greater in drug courts where the judge spends an average of 3 minutes or more per participant during a status review hearing. Recidivism reductions were 35% greater in drug courts where the drug-court judge's term was indefinite.
Jones 2013	Between-individual, randomised trial in the New South Wales Drug Court, comparing two conditions: twice-weekly judicial hearings and weekly judicial hearings (supervision as normal).	Clients undergoing twice-weekly judicial hearings performed more favourably than those who were supervised as normal. Improvements were noted for rates of early-phase substance use and sanction rates.

Table 14: Key research outcomes – judicial status hearings

Source	Method	Findings
Long and Sullivan (2016)	Between-individual study of juvenile drug court clients compared to probation as usual. Frequency of judicial hearings was examined after controlling for individual and other program effects.	No significant relationship between the frequency of judicial status hearings and key drug court outcomes. Some evidence suggests that more frequent appearances new create new opportunities of infractions which may ultimately undermine treatment success.
Roman et al. (2011)	Using a three-staged interview (0, 6 and 18 months) of 1,259 respondents from across 29 court locations, the between-court and between-individual effects of drug court on criminal offending outcomes were examined using a multi-level structural equation model.	<ul style="list-style-type: none"> The number of court appearances had no direct impact on the rate of crime at 18 months. Rather, the impact of court appearances was mediated indirectly through an improvement in the attitude towards the judge.
Roman et al. (2011b)	Between-individual comparisons of ‘dosage’ effects were performed using a propensity score processes for 1,259 respondents across 29 court locations. Data were re-weighted to control for endogeneity so that dosage effects could be isolated in the presence of controls for initial propensity.	<ul style="list-style-type: none"> The frequency of initial-phase status hearings was positively associated with a reduction in crime and drug use at both 6 and 18 months. <p>Contact with a supervising officer was significantly related to reductions in crime and drug use at both 6 and 18 months.</p>
Source: Adapted from abstracts and article summaries		

Box 16: Queensland Stakeholder and Consultation Feedback (Court appearances)

- The introduction of court-ordered parole as a sentencing option provided a potentially less intensive alternative sentencing option for prospective drug court clients. As a consequence, some offenders were inclined or encouraged to opt for a short prison sentence followed by court ordered parole.
- The prevailing focus of the former drug court, principally in its later years, was in managing and responding to non-compliance. Although it is important to respond appropriately to breaches, the over use of sanctions had led, in some circumstances, to voluntary termination. There was a view that some clients saw the drug court program as “too punitive and too much work” compared to alternative sentencing pathways.

Summary and recommendations

Best Practice – what does the evidence say?

Requiring drug court participants to regularly attend judicial status hearings is a unique and important feature of the drug court model. Importantly, it is an element of the court that has often been linked to more favourable individual-level and court-level outcomes. Unlike any other community-based criminal justice intervention, the regular attendance at court helps to:

- promote the therapeutic alliance with participants by facilitating regular contact with the judicial officer and drug court team;
- activate and promote perceptions of deterrence through the court’s ability to apply swift and certain sanctioning for non-attendance and non-compliance;
- alter the participant’s routine activities and strengthen their ties to positive and prosocial institutions, such as the court; and
- create a non-adversarial environment in which a participant’s existing perceptions of the criminal justice system can be challenged, leading to an enhanced perception of procedural justice and greater respect for the legitimacy of the law and the contribution of parties to the legal process (police, prosecution, legal aid).

Frequency of court appearances

How often a participant is required to attend the court remains a matter of some debate, however the frequency of attendance must be highest in the initial phase of the drug court program (to activate perceptual deterrence), and at least weekly attendance is required for high-risk participants (those for whom strong perceptual deterrence is required) (Marlowe et al., 2002; Jones 2013). Lower frequencies of attendance may be granted with the agreement of the drug court team if frequent attendance is likely to interrupt treatment, employment, family or other educational activities. Importantly, the court must also consider the perception of equity and fairness among clients when deciding on non-standard attendance arrangements.

Length of Court Interactions

When it comes to judicial status hearings, quality is better than quantity. Regular attendance to a poorly functioning court is likely to undermine the therapeutic alliance, and limit the capacity of the court to motivate clients through their treatment journey. Therefore, mandating regular appearances at court is only of benefit to a drug court program when the drug court magistrate and

drug court team are functioning in accordance with the other best-practice principles identified throughout this review.

Ideally, the drug court magistrate should spend a sufficiently length of time with participants to ensure that a therapeutic alliance can be established. International literature points to more favourable outcome for longer court sessions, however the international benchmark has been set at three minutes or more (Carey, Macklin and Finnegan 20102).

Recommendations

In the re-establishment of drug courts in Queensland, consideration should be given to the following recommendations:

- 1) The drug court program be structured on the assumption that all clients are required to attend court for review at least weekly in the first phase of treatment.
- 2) Alternative attendance arrangements must be agreed by the whole team and should not be seen to unfairly favour one or specific cohorts of participants. Maintaining fairness and equity among participants will be important for fostering improvements in the perceptions of procedural justice.
- 3) Court attendance requirements should be tapering with each consecutive phase of participation. Court attendance requirements should not serve as a barrier to employment or other education activities during the reintegration phase of the drug court program.
- 4) Technological alternatives should be investigated where attendance at court has the potential to disrupt treatment.

The Judicial Officer

The role of the judicial officer and the importance of specific judicial attributes are not widely discussed throughout the best-practice literature. In large part, this is because key drug-court practices and benchmarks presume a level of interaction and engagement by the judicial officer that is therapeutic in nature and not often seen in traditional court settings. In addition, drug courts were initially an innovation driven by a small number of passionate judicial officers keen to meet the challenge of drug use and crime through non-traditional means. Consequently, those judicial officers taking up the challenge of drug courts were likely to be already therapeutically inclined or, if not, interested in trying a new approach.

The role of the judge in the drug court process is important. Judges exert considerable influence and authority over offenders; and, when used in a strategic manner, such influence can elicit positive change. The courtroom setting in drug court programs creates an opportunity to use judicial authority in a constructive way. The setting allows judges to engage with participants in ways that are meaningful in terms of interpersonal interaction, while the repeated status hearings afforded by the drug court process allow for judges to establish ongoing relationships with offenders that can be caring and supportive, as well as disciplinary (Rossman et al., 259)

Judicial tenure

The only specific and direct acknowledgement of the judicial officer in the NADCP's 10 Key Components was to recognise that in the interests of consistency and stability for the drug court and its operations, 'the judge ... should be assigned to the drug court for a sufficient period of time to build a sense of teamwork and to reinforce a non-adversarial atmosphere' (Benchmark 2.2). Although not a direct comment on the nature of a judicial officer's personal or interactional attributes, their position of authority and support for the therapeutic philosophy and goals of the court are often described by stakeholders as important for the longevity and stability of the drug court team and its effectiveness (Plontikoff and Woolfston 2005). This view, though difficult to test empirically, has found some recent support in a meta-evaluation by Carey and colleagues (2008), where it was shown that criminal and drug use outcomes were more favourable for those drug courts where the judicial officer was allocated for a term of no less than two years. Similarly, in a later study of 69 drug courts, Carey et al. (2012) also found that longer-term recidivism rates were 35 percent lower for courts where the judicial officer's term was indefinite.

The judge presides over the Drug Court for no less than two consecutive years to maintain the continuity of the program and ensure the judge is knowledgeable about Drug Court policies and procedures.

Implicit in the question of judicial tenure is the notional importance of judicial consistency – that, where possible, individual drug court participants should appear before the same judicial officer for the entire duration of their drug court participation. Though this may be difficult to achieve in practice, stakeholder and participant feedback has nevertheless acknowledged the potentially detrimental effects of 'magistrate shopping' and the consequences of judicial inconsistency for maintaining participant engagement in treatment and other therapeutic goals.

Participants ordinarily appear before the same judge throughout their enrolment in the Drug Court.

“Judicial supervision is both desirable and achievable. Judges who accept the principles of therapeutic jurisprudence ‘buy in’ to the role of assisting the defendant through court coercion. The individual judge has objectives that only he or she can deliver. Conversely, the defendant becomes accustomed to the individual judge’s expectations and then begins to meet these expectations. Defendants more than anyone pick up on an individual judge’s personality and modify their behaviour accordingly. It is a key motivating source. It is very different where a defendant is told by a probation officer to do something. I tell defendants “Your life is going to be controlled by me and there will be severe consequences if you do not obey”” (Judge Simon, cited in Plotnikoff and Woolfson 2005:41).

‘Continuity is critical. Participants know they will be held accountable by “their judge”. We have had participants ask to delay graduation from the program when the judge was out of town. The relationship between judge and participant definitely contributes to a successful outcome’ (Kendis Stake, Las Vegas drug court, cited in Plotnikoff and Woolfson 2005:41).

Judicial attributes

Although not earlier documented as a key consideration for the establishment of drug courts, a series of meta-analyses and reviews have since cast light on the importance of the judicial officer and their approach to the court. In two of the most comprehensive reviews of drug court programs, both Temple University (Goldkamp et al., 2001) and RAND Corporation (Longshore et al. 2001) argue that the courtroom dynamic and the nature of the interaction between clients and the judicial officer are important factors underpinning the relative success of drug courts internationally.

*The judge **offers supportive comments** to participants, stresses the importance of their commitment to treatment and other program requirements, and **expresses optimism** about their abilities to improve their health and behaviour. The judge **does not humiliate** participants or subject them to foul or abusive language. The judge **allows participants a reasonable opportunity to explain** their perspectives concerning factual controversies and the imposition of sanctions, incentives, and therapeutic adjustments*

On the specific question of judicial attributes, there are only a handful of empirical studies. Of these, the most informative come from the Multi-Site Drug Court Evaluation conducted across several waves and included 23 US drug courts in seven geographical clusters. Underpinning the study were several methods, including participant interviews at zero, six and 18 months as well as processes evaluation analysis in which members of the research team observed court operations and coded their key features. In one of the first analyses of these data, Zweig and colleagues (2011) examined the process evaluation data for each of the 23 courts and compared their outcomes against a range of process and implementation criteria, including an assessment of the attributes of the local drug court judge. Six judicial attributes were assessed by the evaluators, including whether the judicial officer, in their dealings with the team and participants, was considered fair, attentive, enthusiastic, consistent, caring and knowledgeable. All six criteria were later combined into a single composite measure and compared between differently performing courts. The results showed that courts with the most favourable drug use and recidivism outcomes were those where the judicial officer was rated as having highly or moderately positive therapeutic attributes. Most notably, after controlling for this variability, the frequency of judicial status hearings was no longer associated with more

favourable drug court outcomes, suggesting that the therapeutic quality of the interaction between the court and the participant is more important than its frequency.

In separate analyses of the same multi-site evaluation data, Rossman and colleagues (2011) examined a series of self-report surveys collected from 1,784 participants, including 1,157 drug court participants and 627 comparison group members. The surveys were conducted at three time points; first was at the time of entry into the drug court program and then later at 6 and 18 months. Among the battery of questions used in the survey there was a series of items that sought to examine the participant's attitude of the judicial officer, including whether the judicial officer was knowledgeable about their case; knew them by name; helped them to succeed; emphasized the importance of drug and alcohol treatment; was not intimidating or unapproachable; remembered their situations and needs from hearing to hearing; gave them a chance to tell their side of the story; could be trusted to treat them fairly; and treated them with respect.

Using a multi-level structural equation model, Rossman and colleagues (2011) tested a series of client-level and court-level characteristics for their direct and indirect association with drug use and recidivism at 18 months. In their final model, results confirmed a direct and unmediated drug court effect on recidivism when compared to a comparison group of probationers. Upon further examination, however, the authors later revealed that an individual's recidivism at 18 months was significantly associated with his/her attitude towards the judicial officer at 6 months. Specifically, the analysis suggested that the more positive a client felt towards the judicial officer, and the more praise he/she received from the court, the lower their rate of recidivism and drug use was at 18 months. Notably, neither the frequency of judicial status hearings, nor the length of time spent on the program had a direct effect on recidivism. Instead, the contribution of these factors were all mediated through their effect upon the individual participant's attitude towards the judicial officer.

In a mostly qualitative review of international drug courts conducted on behalf of the UK Government, Plotnikoff and Woolfson (2005) conducted a series of interviews with key drug court magistrates, including magistrates and drug-court practitioners in New South and South Australia. In that review, several skills and attributes were identified as important to the successful functioning of drug and other specialist courts. According to the authors (2005:32), these included:

- The willingness and ability to 'talk straight' with participants;
- Good organisational skills;
- An ability to work with defendants presenting multiple problems;
- An understanding of personal development;
- An understanding of addiction;
- An understanding of the role of social services;
- Acceptability to both prosecution and defence;
- Patience;
- A sense of humour.

Key among the attributes identified by Plotnikoff and Woolfson (2005), specific mention was given by respondents to the magistrate's ability to 'talk straight' with participants about their progress in treatment and empathise with the challenges faced during withdrawal and relapse. Magistrate Tony Newman, for example, is quoted as having said:

'The time of admission to the program is an important chance to engage the participant and give the participant a clear understanding of the program. I

welcome them to the program. I point out that many resources will be made available to assist them. Having done that, I make it quite clear, however, that the hard decisions have to be made by them; that no one else can make them' (Magistrate Newman, cited in Plotnikoff and Woolfson 2005:31).

'This is a pro-active role. Most judges are reactive in nature. In this court we have a more preventative role - we see the problem and try to prevent an escalation of crime. This is a non-adversarial process with the judge as mediator' (Judge Bentley, cited in Plotnikoff and Woolfson 2005:32).

Judicial interaction

The quality of judicial interaction within the court room is likely, in large part, to reflect the dispositional and therapeutic inclination of the judicial officer. However, an important question remains about whether the relationship between the judicial officer and the participant is influenced by the courtroom process, independent of a judicial officer's personal disposition. Although difficult to disentangle and test empirically, the available evidence suggests that judicial attributes and disposition may be more important than the types of interactions the judicial officer has in the drug court courtroom.

In the Multi-Site Drug Court Evaluation by Zweig and colleagues (2011), the functional components underpinning judicial interaction (as distinct from judicial attributes noted earlier) were reviewed across 23 drug courts. In all, eight distinct types of interaction were identified and coded into a single composite known as the judicial interaction score. This included:

- whether the judicial officer made regular eye contact with the defendant (for most of the appearance);
- whether the judicial officer talked directly to the defendant (as opposed to through the defendant's attorney);
- whether the judicial officer asked non-probing questions (e.g., yes/no or other questions eliciting one-word answers);
- whether the judicial officer asked probing questions;
- whether the judicial officer imparted instructions or advice;
- whether the judge explained the consequences of future compliance (e.g., phase advancements, graduation, etc.);
- whether the judicial officer explained consequences of future noncompliance (e.g., jail or other legal consequences); and
- whether the judicial officer allowed the defendant to ask questions or make statements.

Subsequent analysis of the judicial interaction score showed no clear association with program effectiveness. In other words, how many of these activities were typically performed by the judicial officer seemed not to be related to the overall effectiveness of a drug court program.

Of course, on this limited evidence it should not be concluded that the level or type of judicial interaction within the court and with drug court participants is unimportant. Instead, taken together with earlier evidence, it might be concluded that the relative effectiveness of any judicial interaction will be mediated through the nature and type of relationship that is developed over time between the court and the drug court participant. Even the most interactive judicial officer may not be able to foster positive court-to-participant relationships if the nature of the interaction isn't therapeutically focused and consistent with the broader philosophy and aims of the drug court program.

Judicial leadership and community engagement

It is commonly accepted that the judicial officer represents the ‘public face’ of the drug court program, and therefore has a responsibility to be proactively engaged and lead community activities which promote the goals, philosophy and achievements of the court (Plontikoff and Woolfston 2005). A positive community and interagency perception of the drug court can be essential to the longevity of the program and the judicial officer should encouraged to be actively engaged in this process.

‘The judge must have a good relationship with community leaders. A lot of time is spent building a relationship with them. This is a departure from the normal judicial role, but judges with an understanding of the new therapeutic jurisprudence know why this is important’ (Judge Hartford, cited in Plontikoff and Woolfston 2005:52).

In a review by Plontikoff and Woolfston (2005), several activities were identified as areas in which judicial officers should be encouraged to participate and, in many cases, show leadership. These included (2005:52):

- leading a collaborative approach to working across criminal justice system agencies and solution providers;
- showing active commitment to the community by leading the court and the court staff in discovering local concerns and priorities;
- ensuring that a dialogue is maintained with the community about their priorities for community penalties;
- participating in non-court community activities designed to knit court and community together or to divert people from crime; and
- ensuring that the court is seen as integral to the community and an essential part of the criminal justice response to drug-related offending.

Professional Training

An important qualification is required when interpreting the relative importance of the judicial officer to the functional practice and outcomes of a drug court program. Specifically, it is undoubtedly the therapeutic quality of the interaction between the court and the participant that is most influential. Conversely, there is also some broad agreement that non-therapeutically inclined judicial officers with little investment in the underlying treatment and intervention philosophy of the drug court can ultimately undermine the court-to-participant relationship and thus limit the court’s overall effectiveness. Though there are few empirical tests of this claim, stakeholder feedback strongly supports the need for judicial officers who are passionate about the drug court program, invested in its philosophy, and sufficiently trained and informed about the therapeutic needs of drug dependent offenders.

In this context, judicial education and training should be seen as an essential element of any drug court program, ensuring that judicial officers are regularly engaged in educational and training programs that connect them to current research evidence and best practice principles in an evolving policy and practice environment. Existing drug court judicial officers, for example, would benefit significantly from ongoing engagement with emerging treatment and drug addiction literature, as well as new or promising best practice principles in therapeutic jurisprudence. Similarly, where and when judicial rotation or replacement is required, new or substitute judicial officers should be adequately trained on the functional and therapeutic nature of the drug court program.

“The Drug Court judge attends current training events on legal and constitutional issues in Drug Courts, judicial ethics, evidence-based substance abuse and mental health treatment, behaviour modification, and community supervision. Attendance at annual training conferences and workshops ensures contemporary knowledge about advances in the Drug Court field.”

Box 17: Queensland Stakeholder and Consultation Feedback (Judicial officer)

- If there is more than one drug court magistrate, or if one is covering for leave, there needs to be a proper handover of the drug court caseload. This is important so information can be relayed that isn't in the notes on the file (Magistrate – Phase 1 consultation).
- The drug court involves a lot of Magistrates' time. This is expensive, but worth it. There is a need to find a way to fund the significant involvement of the magistrate (Magistrate – Phase 1 consultation).
- Retention of the same sentencing Magistrate throughout if possible (Magistrate – Phase 1 consultation).
- Magistrate's role is critical. This is the person who 'wields the stick', manages the process and disagreements between agencies, who decides on the offender's continuation in the program (Magistrate – Phase 1 consultation).
- Consistency is important. Where there is a risk of inconsistency, there is a need for greater case coordination between rotating magistrates.
- Magistrate shopping can weaken a program.
- Magistrates were potentially over-involved. There is a risk of them over-stepping their role as a judicial officer. Magistrates looking disappointed if the participant did the wrong thing. There is a risk of bias creeping in and the magistrate losing their objectivity.
- Could a sub-judicial JAG officer lead the team, with the magistrate playing the ultimate, objective and impartial role of decision making?
- An intensive program need not require the magistrate on every 'hearing' or occasion.

Table 15: Key research outcomes – judicial interaction and attributes

Source	Method	Findings
Zweig et al. (2011)	Between-court , multi-site comparison of 23 drug courts. Courts were ranked relative to their success in reducing reoffending and substance use. The attributes of judicial officers at each court were ranked during process evaluation site visits, taking into account the following dimensions: respect, fairness, attentiveness, enthusiasm, consistency/predictability, caring and knowledgeable.	Drug courts with medium or high rankings for positive judicial attributes were among the most effective for both criminal justice and drug use outcomes. Once judicial attributes were accounted for, the level or frequency of judicial interaction was not associated with drug court effectiveness.

Table 15: Key research outcomes – judicial interaction and attributes

Source	Method	Findings
Carey, Mackin and Finigan (2012)	Between-court , multi-site comparison of 69 adult drug court evaluations conducted by NPC Research. Combined, the comparative analysis included data for 32,719 individuals (16,317 drug court participants and 16,402 comparison group members). Process evaluations were used to identify compliance across the key components. Recidivism was measured as the number of new arrests within two years of program commencement.	Recidivism reductions were 153% greater in drug courts where the judge spends an average of 3 minutes or more per participant during a status review hearing. Recidivism reductions were 35% greater in drug courts where the drug-court judge's term was indefinite.
Rossman et al. (2011)	Using a three-staged interview (0, 6 and 18 months) of 1,259 respondents from 29 drug court locations, the between-court and between-individual effects of the drug court on criminal offending outcomes were examined using a multi-level structural equation model.	Attitude towards the judge at 6 months predicted a lower rate of crime at 18 months. Most other court activities (the frequency of status hearings and the length of time spent on the program) had no independent or direct effect on a participant's long-term prognosis. Instead, these within-court activities were mediated through the client's attitude towards the judge, which served as the principal predictor of lower recidivism at 18 months. A measure of procedural justice – the mechanism most often used to explain the judicial officer effect – was not independently predictive of improved drug use or criminal outcomes at 18 months.
Carey et al. 2008	Between-court , multi-site comparison of 18 adult drug court evaluations conducted by NPC Research.	Graduation rates and recidivism reductions were both significantly greater for drug courts where the judge was assigned to drug court for a term of greater than 2 years (or indefinitely).
Source: Adapted from abstracts and article summaries		

Summary and recommendations

On the balance of the available evidence there appears little doubt that the attitude and approach of the judicial officer can significantly influence the outcomes of an entire drug court program. Judicial officers who actively engage and motivate clients appear to produce more favourable outcomes than those who do not. The effect of the judicial officer seems so significant that in one of the most rigorous evaluation studies to date (Rossman et al., 2011), the participant's perception of the judicial officer was the single most important factor predicting longer term success for both drug use and recidivism outcomes.

From the perspective of *Risk, Need and Responsivity*, these results are consistent with the view that among the most significant benefits of a drug court program is its capacity to activate individual responsivity to treatment and motivation for behavioural change. A positive, therapeutically safe interaction with clients within the court can assist all other case management and treatment interventions, without which drug courts are not likely to be any more effective than standard community supervision programs such as probation and parole. For future drug courts, therefore, it

is of paramount importance that magistrates are selected based upon their *willingness* and *capability* of engaging with participants in a therapeutically focussed environment – one in which participants are appropriately and fairly sanctioned for their transgressions, but where the court is seen as a safe and trusted environment that is empathetic to the challenges and difficulties of drug dependency. As the leader of the court, the judicial officer is critical to maintaining this philosophy over the longer term.

Judicial tenure

Though difficult to test empirically, the accumulated evidence suggests that more favourable outcomes are achieved in drug courts where the judicial officer has a period of tenure lasting longer than two years. A meta-evaluation by Carey and colleagues (2008) found that criminal and drug use outcomes were more favourable for those drug courts where the judicial officer was allocated for a term of no less than two years. Similarly, in a later study of 69 drug courts, Carey et al., (2012) also found that longer-term recidivism rates were 35 percent lower for courts where the judicial officer's term was indefinite.

Judicial attributes

The drug court literature has long recognised the importance of the 'courtroom dynamic' and the nature of the interaction between clients and the judicial officer as important factors underpinning the relative success of drug courts internationally. Specifically, the relationship between the judicial officer and the participant has been shown to be among one of the most important factors predicting longer term success (Rossman et al., 2011). In interviews with drug court magistrates (Plontikoff and Woolfston 2005) a number of key attributes have been defined as important in fostering an apposite and therapeutically inclined drug court, including:

- The willingness and ability to 'talk straight' with participants;
- Good organisational skills;
- An ability to work with defendants presenting multiple problems;
- An understanding of personal development;
- An understanding of addiction;
- An understanding of the role of social services;
- Acceptability to both prosecution and defence;
- Patience;
- A sense of humour.

Judicial leadership

Drug court Magistrates play an important and pivotal role in the leadership of the drug court team and the court more generally. Without this leadership, the philosophy of the court is difficult to maintain, as is the broader community and political support. As a result, the Magistrate must lead the court and it's the development of its strong public profile by (Plontikoff and Woolfston 2005):

- leading a collaborative approach to working across criminal justice system agencies and solution providers;
- showing active commitment to the community by leading the court and the court staff in discovering local concerns and priorities;
- ensuring that a dialogue is maintained with the community about their priorities for community penalties;
- participating in non-court community activities designed to knit court and community together or to divert people from crime; and

- ensuring that the court is seen as integral to the community and an essential part of the criminal justice response to drug-related offending.

Professional training

Judicial education and training should be seen as an essential element of any drug court program, ensuring that judicial officers are regularly engaged in educational and training programs that connect them to current research evidence and best practice principles in an evolving policy and practice environment. Existing drug court judicial officers, for example, would benefit significantly from ongoing engagement with emerging treatment and drug addiction literature, as well as new or promising best practice principles in therapeutic jurisprudence. Similarly, where and when judicial rotation or replacement is required, new or substitute judicial officers should be adequately trained on the functional and therapeutic nature of the drug court program.

Recommendations

In re-establishing a drug court in Queensland, the following recommendations should be considered:

- 1) That the drug court Magistrate be carefully selected with due consideration of the attributes required to foster a strong and safe therapeutic environment. The Magistrate should be able to lead the drug court team while simultaneously fostering a therapeutic alliance with drug court participants.
- 2) Judicial ownership of the drug court program is important and so the drug court Magistrate should be appointed early enough such that he/she can help shape the court's practices and procedures prior to implementation.
- 3) Drug court Magistrates should be appointed for as long as is practicable, but for no less than two years.
- 4) Drug court Magistrates should be offered regular and ongoing professional development. This includes education and training on drug dependency, co-morbidities and best practice interventions for drug dependent offenders, as well as opportunities to conference with other interstate and international drug court colleagues.
- 5) Drug court Magistrates should be strongly encouraged (if not required) to maintain a regular schedule of community promotion and educational engagement activities aimed at raising awareness of the drug court's aims, activities and achievements. This includes giving presentations to community and government agencies, as well as facilitating information sessions and workshops.
- 6) There should be a concerted effort to monitor 'client satisfaction' as part of an ongoing system of evaluation and review. This data should be collected by an independent body and, if warranted, the magistrate should be open to exploring personal and court-level strategies for improving participant satisfaction.
- 7) All temporary or new Magistrates should be appropriately and adequately trained before sitting on the drug court. Ideally, this should involve a period of 'shadowing' where new magistrates can learn directly from outgoing magistrates in an apprenticeship style approach.

Sanctions and rewards

It is almost universally recognized that drug courts offer two distinct advantages over traditional criminal procedures. The first is the court's ability to impose sanctions for non-compliance in a swift and certain manner, and the second is the capacity to incentivize compliance and reward clients for meeting treatment and rehabilitation goals. Accordingly, the OJP's 10 Key Components recognize that an essential part of each client's ongoing judicial interaction is the capacity of the court to apply appropriate incentives and sanctions to match a participant's treatment progress (Benchmark 7.2). Specifically, there is a broadly accepted view that responses to compliance and non-compliance be explained verbally and be available in writing to each participant at all times (Benchmark 6.2); that procedures for reporting non-compliance be clearly defined in the drug court's operational documentation (Benchmark 6.1); and that both rewards and sanctions be applied promptly (Benchmark 5.7) and vary in intensity (Benchmark 6.3 and 6.4).

Consistent with these themes, a more wide-ranging and comprehensive review by Hiller et al. (2010) identified substantial recognition by drug court professionals that the use of both sanctions and rewards was a key differentiating feature of the drug court model. Specifically, under the principle of *Therapeutic and Individualised Jurisprudence*, Hiller et al. (2010) found strong endorsement for those drug courts where the judicial officer tends to individualise both rewards and sanctions and where the rewards are matched to the level of compliance shown by the participant. In addition, under the principle of *Graduated Sanctions* it was identified by drug court professionals as important for drug courts to have in place a specific system of sanctions that is formalized into a written policy that links specific sanctions to specific behaviours.

Despite the apparent consensus of drug court professionals, the empirical outcomes of various meta-analyses provide somewhat equivocal results. For example, in the first of two meta-studies by Zweig et al. (2011), the practices of 23 drug courts were assessed and then used to compare between-court graduation and recidivism outcomes. Of the key activities assessed, the authors found that graduation rates (but not recidivism rates) were more favorable for courts where it was possible to impose sanctions in advance of a client's regularly scheduled court hearing. Recidivism outcomes, on the other hand, were more favorable in courts where it was possible to decrease the frequency of future treatment sessions as a reward and where only the judicial officer had an ability to offer tangible rewards.

In a follow-up by Zweig et al. (2012), the predictability (or certainty) of sanctioning was measured as composite of rankings across three drug court practices. These were: (1) that the court maintained an official schedule of sanctions; (2) that clients were provided with the official schedule of sanctions; and (3) that the official schedule of sanctions was always, or almost always, followed by the court. When categorized and cross-classified by various effectiveness measures, the study found that the best performing courts (in terms of graduation rates and recidivism outcomes) were those with medium-levels of predictability. Notably, drug courts with the highest level of predictability were often among the worst performing of the 23 courts under analysis.

Finally, in the meta-study of 125 drug courts by Carey et al. (2012), cost savings were shown to be 100% greater for drug courts in which sanctions were imposed immediately after non-compliant behaviour (i.e. sanctions are not held over for determination at the participants regularly scheduled meeting). However, in courts where imprisonment sanctions typically exceeded two weeks in duration or longer, the recidivism rate was statistically higher and the cost savings were

commensurately lower. The most effective courts reported an average imprisonment sanction of only 1-2 days.

Specificity and advance notice

Although not always consistent in their conclusions, emerging from these between-court comparative studies are a number of key themes which should be considered as guiding principles for drug court intervention programs. With regard to sanctions, it appears that an effective regimen is one that has **specificity**. As argued by Marlowe (2008)

“... ambiguity undermines the effects of sanctions. If clients do not have advance notice about the specific behaviours that may trigger a sanction, and the types of sanctions that can be imposed, they will be apt to view the imposition of sanctions as unfair. This is unlikely to improve the behaviour and may lead some clients to sabotage their own treatment goals. Moreover, it leaves room for after-the-fact misinterpretation or reinterpretation of the rules, which may give clients the power to at a later point negotiate future sanctions” (Marlowe 2008:109).

Under the specificity principle, it is preferable that clients be clearly informed in advance about the specific behaviours which constitute a breach or infraction. Drug court protocols should avoid the use of vague terms, such as “irresponsible behaviour” or “not complying” as these can be open to misinterpretation and reinterpretation. Doing so necessitates the development of clear documentation, available at all times to all drug court practitioners and participants, and in which breaches and infractions are concretely defined and their consequences clearly stated. As Marlowe (2008) argues, there should be no equivocation by the drug court team about the evidence required to substantiate a breach and participants of the drug court program should be left with little doubt about the forthcoming consequences. The sanctioning parameters of the court should be, as Marlowe (2008) suggests, “memorialised in a written manual that clients can refer to and that can be consulted to resolve disputes concerning the rules of the program”.

Most recently, the National Association of Drug Court Professionals recognised the need to provide drug court clients with **advance notice** as an important best practice standard. Specifically, it is argued that:

Policies and procedures concerning the administration of incentives, sanctions, and therapeutic adjustments are specified in writing and communicated in advance to Drug Court participants and team members. The policies and procedures provide a clear indication of which behaviours may elicit an incentive, sanction, or therapeutic adjustment; the range of consequences that may be imposed for those behaviours; the criteria for phase advancement, graduation, and termination from the program; and the legal and collateral consequences that may ensue from graduation and termination. The Drug Court team reserves a reasonable degree of discretion to modify a presumptive consequence in light of the circumstances presented in each case (NADCP 2013).

Individualisation of sanctions

Complicating the specificity of drug court sanctions is the need to **individualise** sanctions to each client’s unique circumstances. Individualisation is recognised as a unique and key feature of drug courts, although no specific empirical evidence exists to suggest that courts which individualise sanctions perform more favourably – except that individualisation may assist to activate a client’s

perception of procedural justice. In any case, where a court decides to offer a more tailored and individualised approach to the sanctioning of non-compliance, it should still attempt to fully articulate a set of clear breach-to-sanction rules even if these exist in written documentation as a permissible range.

Swift and Certain

Once specified, sanctions must be **certain** to be effective (Marlowe 2008). “The more certain it is that clients will receive sanctions for infractions, the less likely it is that they will repeat those infractions” (Marlowe 2008:110). To be certain in sanctioning requires close monitoring and vigilance on the part of program and treatment providers.

Clearly specified sanctions that are certain to be applied are likely only to be effective if they can be imposed with **immediacy**. According to Marlowe (2008), the behavioural effect of any sanction is “likely to degrade within only hours of days after an infraction has occurred” (Marlowe 2008:110) and as such, mechanisms should exist within the drug court to facilitate the identification of a “within-team” consensus about the status of an infraction and to permit the imposition of a sanction by the team member in the most expedient position to do so. For those sanctions that can be imposed by clinicians or case managers, waiting several days to weeks for the matter to be discussed at court would unnecessarily delay imposition. For sanctions requiring the authority of judicial officer, status hearings may need to be held more regularly (for high-risk clients where infractions are anticipated) or be able to be rapidly scheduled.

Severity

Finally, consistent with theories of perceived deterrence (see Nagin 2012) the **severity** of a sanction is likely to be the weakest contributor to behavioural change and there is relatively little evidence to suggest that the imposition of harsh sanctions in a drug court program improves individual or court level outcomes. For example, the early accrual of sanctions during the formative phases of drug treatment have been linked to poorer post-program outcomes (Brown, Allison et al. 2011, McRee and Drapela 2012), while excessive incarceration sanctions have been shown to weaken drug court outcomes and are especially ineffective, it seems, for those with a prior history of imprisonment (Brown, Allison et al. 2011).

According to Marlowe (2008) the evidence suggests that sanctions tend to be least effective at the lowest and highest magnitudes. For weak sanctions, regular imposition may lead to “habituation”- a situation in which clients become accustomed to punishment and consequently less responsive to it. On the other hand, higher-magnitude sanctions will likely be interpreted by drug court participants as overly-punitive and thus precipitate anger and despondency toward the court. This, in turn, can undermine the therapeutic relationship between the client and the drug court team.

“A drug courts success will largely depend on its ability to apply a creative range of intermediate sanctions that can be ratcheted up or down in response to a client’s behaviour” (Marlowe 2008:111).

Accordingly, the National Association of Drug Court Professionals recognises that sanctions should be graduated and progressive:

The Drug Court has a range of sanctions of varying magnitudes that may be administered in response to infractions in the program. For goals that are difficult for participants to accomplish, such as abstaining from substance use or obtaining employment, the sanctions increase progressively in magnitude over successive

infractions. For goals that are relatively easy for participants to accomplish, such as being truthful or attending counselling sessions, higher magnitude sanctions may be administered after only a few infractions.

Jail sanctions are imposed judiciously and sparingly. Unless a participant poses an immediate risk to public safety, jail sanctions are administered after less severe consequences have been ineffective at deterring infractions. Jail sanctions are definite in duration and typically last no more than three to five days. Participants are given access to counsel and a fair hearing if a jail sanction might be imposed because a significant liberty interest is at stake.

Therapeutic adjustments vs. punitive responses

Building a system of sanctioning guidelines is undoubtedly a challenging prospect. No matter how clearly specified, certain, and serious a sanction is, it is critical not to undermine the therapeutic intentions of the court unless there is a reason to believe that a client poses immediate and unacceptable risk to the community. Most importantly, drug courts must recognise that **treatment is rehabilitative, not retributive** and thus avoid confusing the dosage of treatment as a punishment for non-compliance. To do this, it must be clear to both the drug court team and the client that there exists an important distinction between punitive sanctions for non-compliance and remedial therapeutic responses to insufficient progress in treatment (Marlowe 2008). A common mistake made by many drug courts is to titrate treatment requirements as a “sanction” for non-compliance, however this would likely interfere with the therapeutic alliance by positioning drug and other treatment as aversive rather than rehabilitative (Marlowe 2008).

Further, in developing a sanctioning schedule for a drug court program, there should be a **differentiation between the proximal and distal goals** of the court and its treatment components (Marlowe 2008). Clients can become overwhelmed and subsequently give up on treatment if the demands placed on them are excessive or overly punitive. This is especially the case where sanctions are used to punish behaviours which are inevitable and consistent with a chronic relapsing condition. To avoid this, Marlowe (2008) suggests that there is a need to distinguish between proximal (short-term) and distal (long-term) outcomes and apply sanctions with due consideration of treatment pathway. Proximal goals are those that must be required immediately and necessarily to maintain the integrity of the drug court program – such as the prevention of reoffending. For Marlowe (2008:112) proximal goals ought to be identified as those that clients are readily able and capable of engaging in and which are necessary for longer-term objectives to be achieved. Distal outcomes are those that are desired by the court at the completion of the drug court program, but for which the path to success is likely to be ongoing and long-term. Early in the drug court, higher-magnitude sanctions should be imposed for breaches of proximal goals and expectations, while lower-magnitude sanctions should be imposed for infractions of distal goals. For drug dependent offenders, abstinence should be conceptualised as a distal goal and so the imposition of higher-magnitude sanctions for drug use in the early phases of treatment would likely be therapeutically counterproductive.

Accordingly, the National Association of Drug Court Professionals recognises that sanctions should be graduated and progressive:

Participants do not receive punitive sanctions if they are otherwise compliant with their treatment and supervision requirements but are not responding to the treatment interventions. Under such circumstances, the appropriate course of

action may be to reassess the individual and adjust the treatment plan accordingly. Adjustments to urine collection must also be random and unexpected. Treatment plans are based on the recommendations of duly trained treatment professionals.

In the most comprehensive review of best practice sanctioning guidelines for drug courts Marlowe (2008:113-114) concludes that in best-practice courts, sanctioning procedures and guidelines should:

1. Lay the ground rules in advance so that both the court and clients have clear expectations about the likely consequences of non-compliance;
2. Monitor clients closely, especially in the earliest phases, to ensure that non-compliance can be met with a prompt response;
3. That from the range of possible sanctions, moderate sanctions should be used to the greatest effect in shaping client behaviour, however higher-magnitude sanctions should be applied for non-compliance with proximal goals and lower-magnitude sanctions should be used for non-compliance with distal goals.
4. Above all else, the schedule and application of sanctions must be perceived by drug court clients as 'fair', and in most cases it is preferable to rely on incentives to promote positive behaviour, not sanctions to punish misbehaviour.

Box 18: NSW Drug Court (Sanctions and Rewards)

Rewards can include:

- special privileges such as being allowed to seek and take part in employment
- a change in the frequency of counselling or other treatment
- a decrease in supervision
- a decrease in the frequency of testing for drugs
- a change in the nature or frequency of vocational and social services which the participant is required to attend.

Sanctions can include:

- withdrawal of privileges
- an increase in the frequency of counselling or other treatment
- an increase in supervision
- an increase in the frequency of testing for drugs
- imprisonment in a correctional centre
- a change in the nature or frequency of vocational and social services which the participant is required to attend.

http://www.drugcourt.justice.nsw.gov.au/Pages/dc_program/dc_monitoring.aspx

Box 19: Victorian Drug Court (Sanctions and Rewards)

Possible rewards and sanctions that may be accessed by the Drug Court magistrate include:

Rewards	Sanctions
Verbal praise/encouragement	Verbal warning
Advancement to the next Program phase	Demotion to an earlier phase
Decreased supervision	Increased supervision
Decreased court appearances	Increased court appearances
Reduced drug testing	Increased drug testing
Gift/voucher given	Imposition of a curfew
Reduced unpaid community work	Unpaid community work
Reduced periods of incarceration	Periods of incarceration
Successful Program completion	Termination of participation in the Program

<https://www.magistratescourt.vic.gov.au/jurisdictions/specialist-jurisdictions/drug-court/drug-court-processes>

Incentivising and rewarding progress

The final of Marlowe's (2008) aforementioned recommendations places emphasis on the important role of positive reinforcement in drug courts. Incentives and rewards are now widely recognised by drug court professionals as an essential component, and individual drug court evaluations, both qualitative and quantitative, have demonstrated better outcomes for clients who are rewarded for their compliance and success in treatment (Long and Sullivan 2016). Justification for the use of incentives and rewards can be found in the general behavioural intervention and rehabilitation literature which, founded in early behavioural psychology, suggests that interventions can maximise behavioural outcomes by incentivising positive and desired behaviours more often than punishing negative or undesirable behaviours (Spiegler and Guevremont 1993, Gendreau 1996).

For drug using populations, including drug court clients, evidence has also consistently shown that the development and application of a clear strategy for positive reinforcement is a key to success (Wodahl, Garland et al. 2011). Studies have shown, for example, that points or vouchers systems can be used to encourage abstinence from drug use (Lussier et al. 2006; Stitzer and Petry 2006), as well as attendance at drug rehabilitation, treatment sessions (Sigmon and Stitzer 2005), and adherence to other treatment goals (Petry et al. 2006).

Although behavioural literature favours positive over negative reinforcement, there is no definitive research on the optimal ratio of incentives and sanctions, especially since sanctions are at times necessary to manage non-compliance of a serious and criminal nature. Behavioural psychologists have long proposed an ***incentivisation ratio*** of 4:1 (that is, four incentives to every sanction)

(Gendreau 1996), but there is relatively little research in contemporary drug court contexts which confirms a minimum requirement for optimal effectiveness. In one exception, focused on juvenile drug courts, Long and Sullivan (2016) found that young clients responded more favourably and had better long-term outcomes where the number of rewards was greater than the number of sanctions. Importantly, the authors found that the ‘incentivisation’ effect had a ceiling ratio of approximately 4:1, above which there appeared to be no further benefit to the client or the court (Long and Sullivan 2016). In response to the rather limited evidence base, Marlowe (2012) recommends that best practice for drug courts would be to ensure that the *opportunity* for incentives is at least equal to the opportunity for sanctions.

The Drug Court places as much emphasis on incentivizing productive behaviours as it does on reducing crime, substance abuse, and other infractions. Criteria for phase advancement and graduation include objective evidence that participants are engaged in productive activities such as employment, education, or attendance in peer support groups.

Individualisation of rewards

Not unlike sanctions, the effectiveness of rewards in the drug court is likely to depend on the **perceived value** to the client. The more valuable a reinforcer is (the higher its perceived value), the more effective it will be in promoting a sustained behavioural pattern (Stitzer 2008, see also Lussier et al. 2006). Therefore, tangible rewards (prizes, vouchers etc.) will likely be more effective than intangible rewards (verbal praise, etc.) Importantly, the reinforcing value of any reward is not intrinsic to the reward itself. Rather, it is the value of the reward as perceived by its recipient and this will depend, in large part, on the views and needs of individual drug court clients. To achieve this, **individualised reward schedules** should be developed as part of the client’s case management plan and flexible enough to incorporate the changing needs and circumstances of the client as he/she progresses through the program. Clients should therefore, be actively involved in the selection of rewards and, where appropriate, non-monetary rewards that promote individual wellbeing should be preferred.

In a comprehensive review of the drug court and behavioural intervention literature, Stitzer (2008:100) argues that an effective positive reinforcement strategy requires:

1. *clear definition* and agreement among drug court team members of the behaviours to be targeted. The ideal target behaviour is one that can be readily observed and tracked and one which requires improvement (something participants may have difficulty adhering to);
2. *early identification* of effective reinforcers (incentives and rewards), recognising that the perceived value of any particular reward will differ between clients; and
3. mechanisms that ensure rewards are *immediate, reliable, and consistent*.

Finally, Stitzer (2008:103-104) recommends that effective drug courts should:

1. Incorporate positive reinforcement into all levels of the drug court program;
2. Formalise practice and procedures which require that reports to the judicial officer also highlight the success and accomplishments of participants – not just their failures;
3. Ensure that the judicial officer delivers praise for all accomplishments at all available opportunities; and
4. Where possible, use tangible incentives as part of a graduated system that rewards sustained attainment of the target behaviour/s.

NADCP Best Practice Standards

Professional Demeanour

Sanctions are delivered without expressing anger or ridicule. Participants are not shamed or subjected to foul or abusive language.

Phase Promotion

Phase promotion is predicated on the achievement of realistic and defined behavioural objectives, such as completing a treatment regimen or remaining drug-abstinent for a specified period of time. As participants advance through the phases of the program, sanctions for infractions may increase in magnitude, rewards for achievements may decrease, and supervision services may be reduced. Treatment is reduced only if it is determined clinically that a reduction in treatment is unlikely to precipitate a relapse to substance use. The frequency of drug and alcohol testing is not reduced until after other treatment and supervisory services have been reduced and relapse has not occurred. If a participant must be returned temporarily to the preceding phase of the program because of a relapse or related setback, the team develops a remedial plan together with the participant to prepare for a successful phase transition.

Termination

Participants may be terminated from the Drug Court if they no longer can be managed safely in the community or if they fail repeatedly to comply with treatment or supervision requirements. Participants are not terminated from the Drug Court for continued substance use if they are otherwise compliant with their treatment and supervision conditions, unless they are nonamenable to the treatments that are reasonably available in their community. If a participant is terminated from the Drug Court because adequate treatment is not available, the participant does not receive an augmented sentence or disposition for failing to complete the program.

Consequences of Graduation and Termination

Graduates of the Drug Court avoid a criminal record, avoid incarceration, or receive a substantially reduced sentence or disposition as an incentive for completing the program. Participants who are terminated from the Drug Court receive a sentence or disposition for the underlying offense that brought them into the Drug Court. Participants are informed in advance of the circumstances under which they may receive an augmented sentence for failing to complete the Drug Court program.

Box 20: Queensland Stakeholder and Consultation Feedback (Sanctions and rewards)

- The introduction of court-ordered parole as a sentencing option provided a potentially less intensive alternative sentencing option for prospective drug court clients. As a consequence, some offenders were inclined or encouraged to opt for a short prison sentence followed by court ordered parole.
- The prevailing focus of the former drug court, principally in its later years, was in managing and responding to non-compliance. Although it is important to respond appropriately to breaches, the over use of sanctions had led, in some circumstances, to voluntary termination. There was a view that some clients saw the drug court program as “too punitive and too much work” compared to alternative sentencing pathways.

Table 16: Key research outcomes – sanctions and rewards

Source	Method	Findings
Zweig et al. (2011)	Between-court , multi-site comparison of 23 drug courts. Courts were ranked relative to their success in reducing reoffending and substance use. Predictability of sanctions was ranked on three criteria: (1) The court maintained an official schedule of sanctions; (2) Clients were provided with the official schedule of sanctions; and (3) the official schedule of sanctions was always or almost always, followed by the court.	Drug courts with relatively high predictability of sanctions were among the least effective for both criminal justice and drug use outcomes.
Carey, Mackin and Finigan (2012)	Between-court , multi-site comparison of 69 adult drug court evaluations conducted by NPC Research. Combined, the comparative analysis included data for 32,719 individuals (16,317 drug court participants and 16,402 comparison group members). Process evaluations were used to identify compliance across the key components. Recidivism was measured as the number of new arrests within two years of program commencement.	Cost savings were 100% greater for drug courts in which sanctions were imposed immediately after non-compliant behaviour (i.e. sanctions are not held over for determination at the participants regularly scheduled meeting).
(Marlowe, Festinger et al. 2005)	Between-individual analysis self-reported data for the “Perceived Deterrence Questionnaire”. Data are drawn from three experimental studies (n=302) conducted in Wilmington, Dover and Georgetown, Delaware. Cluster analysis was used to identify longitudinal trajectories of perceived deterrence.	The perception by Drug Treatment clients of a real threat of incarceration may facilitate retention in treatment. Clients who maintain a consistently elevated perception of deterrence typically appear to perform better than those with consistently low or declining perceptions of deterrence
Satel (1998)	Qualitative study	Drug court participants reported that a judge who had the power to apply and who applied sanctions consistently fostered continued adherence.
Marchland <i>et al.</i> (2006)		Non-graduates were more likely than graduates to have received jail sanctions and to have received more cumulative time in custody (51 days versus 15 days, respectively) during drug court participation.
Gottfredson D. C., Kearley B. W., Najaka S. S., Rocha C. M.		Significantly greater likelihood and duration of jail sanctions for the court achieving the lower graduation rate.
Roman et al. (2011)	Using a three-staged interview (0, 6 and 18 months) of 1,259 respondents from across 29 court locations, the between-court and between-individual effects of drug court on criminal offending outcomes were examined using a multi-level structural equation model.	Controlling for a range of client characteristics, those receiving a higher number of sanctions at 6 months later reported a higher crime rate at 18 months.

Table 16: Key research outcomes – sanctions and rewards		
Source	Method	Findings
Roman et al. (2011b)	Between-individual comparisons of ‘dosage’ effects were performed using a propensity score processes for 1,259 respondents across 29 court locations. Data were re-weighted to control for endogeneity so that dosage effects could be isolated in the presence of controls for initial propensity.	The severity of sanctions (specifically jail time) was not associated with a reduction in crime at 6 or 18 months. Rewards in the form of praise by the judge for drug court accomplishments was significantly related to fewer crimes and lower drug use at both 6 and 18 months.
Shannon et al. (2016)	Between-individual analysis of program completion for 534 randomly selected Kentucky Drug Court clients.	The odds of graduation were 82% lower for those receiving warrant sanctions and 71% lower for those receiving incarceration sanctions.

Summary and conclusion

Sanctioning non-compliance and rewarding progress are both essential elements of a drug court program. Specifically, swift and certain responses to episodes of non-compliance are an important mechanism through which the drug court can activate a strong perceptual deterrence among drug court clients, while rewards are important for incentivising motivation for treatment and responsivity to long-term behavioural changes. According to the available best-practice literature, the most successful drug courts are those that achieve an equal mix of sanctions and rewards, but where there is a preference for positive recognition of even the smallest achievements over punitive responses to small and/or infrequent bouts of non-compliance.

Specificity

With regard to sanctions, it appears that an effective regimen is one that has specificity (Marlowe 2008), namely, that participants be informed in advance about the specific behaviours which constitute a breach or infraction. Drug court protocols should avoid the use of vague terms, such as “irresponsible behaviour” or “not complying” as these can be open to misinterpretation and reinterpretation. There should be no equivocation by the drug court team about the evidence required to substantiate a breach and participants of the drug court program should be left with little doubt about the forthcoming consequences (Marlowe 2008).

Participant contract

The sanctioning parameters of a drug court should be “memorialised in a written manual that clients can refer to and that can be consulted to resolve disputes concerning the rules of the program” (Marlowe 2008). Using clear participant contracts allows the drug court to provide unequivocal and advance notice about the range of possible consequences for non-compliance.

Individualisation of sanctions

Individualisation is recognised as a unique and key feature of drug courts, although no specific empirical evidence exists to suggest that courts which individualise sanctions perform more favourably – except that individualisation may assist to activate a client’s perception of procedural justice. In any case, where a court decides to offer a more tailored and individualised approach to

the sanctioning of non-compliance, it should still attempt to fully articulate a set of clear breach-to-sanction rules even if these exist in written documentation as a permissible range.

Swift and Certain

Once specified, sanctions must be certain to be effective (Marlowe 2008). To be certain in sanctioning requires close monitoring and vigilance on the part of program and treatment providers. Clearly specified sanctions that are certain to be applied are likely only to be effective if they can be imposed with immediacy because, according to Marlowe (2008), the behavioural effect of any sanction is “likely to degrade within only hours of days after an infraction has occurred” (Marlowe 2008:110). For sanctions requiring the authority of judicial officer, there should be the capacity for status hearings to be rapidly scheduled if the client is not already required to attend within a few days of a breach.

Severity

The severity of a sanction is likely to be the weakest contributor to behavioural change and there is relatively little evidence to suggest that the imposition of harsh sanctions in a drug court program improves individual or court level outcomes (Brown, Allison et al. 2011, McRee and Drapela 2012). In fact, excessive incarceration sanctions have been shown to weaken drug court outcomes and are especially ineffective, it seems, for those with a prior history of imprisonment (Brown, Allison et al. 2011).

Therapeutic adjustments

Not matter how clearly specified, certain, and serious a sanction is, it is critical not to undermine the therapeutic intentions of the court unless there is a reason to believe that a client poses immediate and unacceptable risk to the community. Most importantly, drug courts must recognise that treatment is rehabilitative, not retributive and thus drug courts should avoid confusing the dosage of treatment as a punishment for non-compliance (Marlowe 2008).

Incentivising with rewards

Incentives and rewards are now widely recognised by drug court professionals as an essential component, and individual drug court evaluations, both qualitative and quantitative, have demonstrated better outcomes for clients who are rewarded for their compliance and success in treatment (Long and Sullivan 2016).

For drug using populations, including drug court clients, evidence has also consistently shown that the development and application of a clear strategy for positive reinforcement is a key to success (Wodahl, Garland et al. 2011). Studies have shown, for example, that points or vouchers systems can be used to encourage abstinence from drug use (Lussier et al. 2006; Stitzer and Petry 2006), as well as attendance at drug rehabilitation, treatment sessions (Sigmon and Stitzer 2005), and adherence to other treatment goals (Petry et al. 2006). Marlowe (2012) recommends that best practice for drug courts would be to ensure that the *opportunity* for incentives is at least equal to the opportunity for sanctions.

Individualisation of rewards

Not unlike sanctions, the effectiveness of rewards in the drug court context is likely to depend on the perceived value of the reward to the client. The more valuable a reinforcer is (the higher its perceived value), the more effective it will be in promoting a sustained behavioural pattern (Stitzer 2008, see also Lussier et al. 2006). Importantly, the reinforcing value of any reward is not intrinsic to the reward itself. Rather, it is the value of the reward as perceived by its recipient and this will

depend, in large part, on the views and needs of individual drug court clients. To achieve this, individualised reward schedules should be developed as part of the client's case management plan and flexible enough to incorporate the changing needs and circumstances of the client as he/she progresses through the program.

Recommendations

In consideration of the reimplementation of drug courts in Queensland, the following recommendations should be considered:

1. A schedule of sanctions should be published and made available to participants at the commencement of their drug court order. Participants must clearly understand the consequences of non-compliance and there should be little room for participants to perceive the courts response as unfair or unbalanced.
2. Overly punitive sanctions should be avoided. In particular, imprisonment sanctions should be used as a last resort and the number of days in custody should not exceed 2-3 days. A growing evidence base suggests that shorter periods in custody are just as effective as longer periods.
3. Treatment should not be used as a sanction for non-compliance. Instead, modifications to an individual participant's treatment plan should only occur when clinically indicated. Most importantly, participants should not, as a consequence of sanctioning, be subjected to more intensive treatment than is clinically indicated
4. Treatment relapse should not be punished by the court. Instead, relapse should be met with treatment adjustments (temporary increase in treatment visits or urinalysis testing, for example), rather than sanctions and especially after prolonged periods of treatment progress. Punitive responses to a temporary lapse in treatment will more likely than not undermine the treatment alliance and weaken the courts capacity to engage and motivate behavioural change.
5. Treatment progress and order compliance should be recognised and rewarded often. Rewards should be offered at least as often as sanctions, but preferably more often where possible. In principle, the court philosophy should be guided by evidence-based behavioural science techniques which favour incentivising compliant behaviour over the sanctioning of non-compliant behaviour.
6. All drug court team members must share in the drug court's policy and philosophy about the use of sanctions and rewards. In particular, participants should not be at any time left with the view that the drug court team is in disagreement about the response to non-compliance.
7. Where possible, participants should be encouraged to identify rewards that have an intrinsic personal value, rather than monetary value. Rewards systems will be most effective when they meet basic personal and emotional needs.
8. Drug court team members, including the Magistrate, be active in promoting the philosophy and achievements of the drug court across government and within the wider community. This includes a discussion about the use of rewards

Drug and other treatment

Developed in 2006, the US National Institute of Drug Abuse (NIDA) makes a number of key recommendations about the treatment of drug addiction among criminal justice populations and in criminal justice settings. As a peak national institute, NIDA plays a critical role in the compilation and communication of research to the government and non-government sector agencies responsible for the provision of health services. This includes criminal justice sector agencies involved in the coordination of drug treatment across a range of criminal justice interventions. In their report, *Principles of Drug Addiction Treatment for Criminal Justice Populations: A Research Based Guide* (2014), NIDA underscore 13 key principles for the delivery of effective treatment in the criminal justice sector.

Box 21: NIDA – 13 Principles of Drug Addiction Treatment for Criminal Justice Populations

1. Drug addiction is a brain disease that affects behaviour
2. Recovery from drug addiction requires effective treatment, followed by management of the problem over time
3. Treatment must last long enough to produce stable behavioural changes
4. Assessment is the first step in treatment
5. Tailoring services to fit the needs of the individual is an important part of effective drug abuse treatment for criminal justice populations
6. Drug use during treatment should be carefully monitored
7. Treatment should target factors that are associated with criminal behaviour
8. Criminal justice supervision should incorporate treatment planning for drug abusing offenders, and treatment providers should be aware of correctional supervision requirements
9. Continuity of care is essential for drug abusers re-entering the community
10. A balance of rewards and sanctions encourages pro-social behaviour and treatment participation
11. Offenders with co-occurring drug abuse and mental health problems often require an integrated treatment approach
12. Medications are an important part of treatment for many drug abusing offenders –
13. Treatment planning for drug abusing offenders who are living in or re-entering the community should include strategies to prevent and treat serious, chronic medical conditions, such as HIV/AIDS, hepatitis B and C, and tuberculosis

Number of treatment options/providers

There is no optimal number of treatment types or treatment providers for a drug court program, and in the spirit of individualised treatment planning it is likely that multiple services will be required. In the drug court evaluation literature, however, it seems that more favourable outcomes can be achieved by calling on the services of a small number of treatment providers. Wilson et al. (2006), for example, found that drug courts that utilised a single treatment provider had slightly larger effects on reoffending outcomes. A similar conclusion was drawn by Carey et al. (2008), who

concluded that drug courts were more cost effective when a single treatment modality was provided by a single treatment provider, especially when that provider could make and manage referrals to other treatment as needed.

There are a number of potential explanations for these findings. It may be, for example, that a single treatment provider connected to the drug court is more likely to adhere to the requirements of the drug court model. In the study by Wilson et al (2006) it was concluded that a single treatment provider would be more likely to be selectively chosen, thus supplying services more closely aligned with best practice treatment, including the application of treatment models that include cognitive behavioural therapies (Wilson et al. 2006). Further, according to drug court staff (Carey et al. 2008), a single treatment provider was more likely to communicate effectively with the court and be committed to the treatment and supervision philosophy, which may facilitate more effective supervision and enable the court to detect program failures and issue sanctions and rewards in a more timely manner (Carey et al. 2008; Wilson et al. 2006).

Ultimately, the existing evidence does not provide strong support for any particular model of treatment service acquisition, whether via a single or multiple treatment providers. Instead, the literature increasingly references the importance of treatment integrity, adherence to treatment best practice, and the maintenance of strong communication and productive relationships between treatment providers and the drug court team as key ingredients to a successful drug court (Carey et al. 2012). That these features are more easily demanded from and achieved by a small and select group of treatment providers suggests that, where possible, drug courts should preference fewer treatment providers who share in the philosophy of the court over a system of multiple treatment providers who operate as ancillary services with no functional relationship to broader objectives of the drug court program.

Box 22: NACDP Best Practice Standards (Treatment)

Continuum of care - The Drug Court offers a continuum of care for substance abuse treatment including detoxification, residential, sober living, day treatment, intensive outpatient and outpatient services. Standardized patient placement criteria govern the level of care that is provided. Adjustments to the level of care are predicated on each participant's response to treatment and are not tied to the Drug Court's programmatic phase structure. Participants do not receive punitive sanctions or an augmented sentence if they fail to respond to a level of care that is substantially below or above their assessed treatment needs.

Team representation - One or two treatment agencies are primarily responsible for managing the delivery of treatment services for Drug Court participants. Clinically trained representatives from these agencies are core members of the Drug Court team and regularly attend team meetings and status hearings. If more than two agencies provide treatment to Drug Court participants, communication protocols are established to ensure accurate and timely information about each participant's progress in treatment is conveyed to the Drug Court team.

Length and intensity

It is without doubt that when compared to the alternatives, drug courts significantly increase a participants' contact and exposure to drug treatment (Gottfredson et al., 2007; Lindquist et al.,

2009) which is in turn linked to improved treatment outcomes (Banks & Gottfredson, 2003; Gottfredson et al., 2007; Gottfredson et al., 2008; Peters et al., 2002; Shaffer, 2010; Taxman & Bouffard, 2005). Peters and Murrin (1998), for example, found that the length of time in drug treatment was significantly related to a reduction in the number of arrests for both drug court graduates and non-graduates. In an analysis of the Baltimore City Drug Court, Gottfredson and colleagues (2003) compared participants who received drug treatment with controls, as well as a group of drug court participants who did not receive drug treatment. The drug court participants who were engaged in treatment had significantly lower rates of recidivism at the two-year follow-up. Similarly, Banks and Gottfredson (2003) found that drug treatment was the only significant predictor of recidivism, while a follow-up study Gottfredson and colleagues (2006) showed that recidivism was lowest among participants who received more days of certified drug treatment and drug testing.

In the general drug treatment literature, for example, the evidence suggests that high need clients should be engaged in treatment for no less than 90 days (Simpson et al; NIDA 2009). For criminal justice clients, however, the most favourable outcomes are found when drug dependent offenders complete a period of treatment that lasts for between nine and twelve months (Peters et al., 2002; Huebner & Cobbina, 2007). Further, research suggests that clients should receive between six and ten hours of drug treatment and counselling per week in the initial phases (Landenberger & Lipsey, 2005).

On the question of treatment length and intensity in the drug court context specifically, the evidence is mixed and depends, it seems, on the outcomes being measured. Some of the various meta-studies (US General Accountability Office 2005; WSIPP 2016), for example, have failed to evidence any significant difference in the reoffending outcomes of courts that vary with respect to the length of drug treatment. Others, however, have found that drug courts with longer treatment programs (between 12 and 18 months at most) are generally more successful in reducing recidivism than those with shorter (or longer) treatment options (Latimer et al. 2006). The survey of drug court administrators conducted by Shaffer (2011), for example, found that the program dimension of 'treatment' ($R^2=0.11$) was, relative to other dimensions examined, a moderate contributor to positive drug court outcomes. Of the program components which comprised the treatment dimension it was only the length of treatment itself which was later identified as positively associated with the effectiveness of drug courts.

Beyond what is considered good practice in the criminal justice and drug treatment literature, there is insufficient evidence to mandate specific treatment lengths in a drug court program. Instead, drug treatment should be thought of as both a treatment and an important part of a rehabilitation continuum such that longer and more intensive treatments are likely to be beneficial if they afford increased time for motivational interviewing, case management and cognitive behavioural interventions. The length of drug treatment may not itself be the most important ingredient of the intervention framework, but rather, that active engagement in longer treatment programs may occupy clients in meaningful non-criminal activities (Lowenkamp et al 2006; Nesovic 2003) and afford opportunities for other interventions not possible in shorter timeframes (Latimer et al. 2006).

Finally, while it is argued that drug courts should be flexible enough to meet individual treatment needs, it is also important that they make clear to potential clients their general guidelines and

expectations of treatment, especially with respect to length and intensity (Carey et al., 2012). Being ill informed about the court's expectations (ie being mandated to continue treatment lasting longer than expected) has the potential to undermine the therapeutic alliance and frustrate clients to the point of voluntary or involuntary termination. Further, it is important that drug courts make clear the distinction between drug treatment length and the duration of a drug treatment order – the best practice literature recommends a period of 12 to 18 months for the latter (Carey et al., 2012; Shaffer, 2010).

In practice therefore, a drug court should aim to:

- Provide drug treatment that is no shorter in length than is considered best-practice in the drug treatment literature (90 days), but aim for a continuum of treatment that facilitates contact with treatment services for a period of between 9 and 12 months.
- Individualise treatment plans (duration and intensity) to meet individual client needs. This includes extending treatment or lessening treatment where deemed appropriate by a qualified treatment clinician.
- Communicate to prospective participants clearly and at the earliest possible opportunity the expectations of the court regarding the length and intensity of treatment. Participants should understand that drug treatment is just one part of their multifaceted rehabilitation plan and that their commitment to the court will extend beyond the period of drug treatment alone.
- Longer drug treatment interventions should be preferred when coupled with key elements of rehabilitation best practice, such as individualised case management, motivational interviewing and cognitive behavioural interventions.

Box 23: NACDP Best Practice Standards (Treatment)

Treatment dosage and duration - Participants receive a sufficient dosage and duration of substance abuse treatment to achieve long-term sobriety and recovery from addiction. Participants ordinarily receive six to ten hours of counseling per week during the initial phase of treatment and approximately 200 hours of counseling over nine to twelve months; however, the Drug Court allows for flexibility to accommodate individual differences in each participant's response to treatment.

Modality

Determining the optimal types of treatment to offer in a drug court program is complex proposition. Best practice principles in treatment would indicate that treatment and rehabilitation plans be individualised such that clients receive interventions that are consistent with their individual needs (NADCP 2013).

In the drug court context, individual drug treatment counselling should be recognised as an important and essential part of the treatment continuum. Generally speaking, drug court clients are often clinically unstable and in a state of crisis when they first enter the drug court program. As a consequence, some treatment options (group counselling and complex cognitive programs, for

example) may be more or less suitable depending on individual circumstances. Consistent with this, two meta-studies have concluded drug court outcomes are typically more favourable for those courts that offer individual one-on-one counselling sessions (with a trained treatment professional or clinician) during the first phase of treatment (Carey et al 2012; Rossman et al., 2011). Accordingly, individual counselling sessions are considered important for ensuring that participants don't "fall through the cracks" at a time when they are "most vulnerable to cravings, withdrawal symptoms, and relapse" (NADCP 2013:42).

In addition, group counselling programs have also been linked to more favourable drug court outcomes, but only if the group counselling programs operate according to best-practice standards and if prospective clients are adequately screened for suitability (NADCP 2013). According to the general drug treatment literature, group counselling sessions are most effective when conducted by two facilitators with between six and 12 participants (Brabender, 2002; Sobell and Sobell 2011; Valasquez et al 2001; Yalom 2005; Latessa, Brusman-Lovins, Smith and Makarios 2010), but alternatives to group-counselling should be considered for individuals with acquired brain injury, paranoia, sociopathy, major depression or post-traumatic stress disorders (Yalom 2005; Drake et al 2008; Ross 2008). This may include the use of more frequent individual counselling or specialised group services for clients with a history of mental illness or trauma (Mendoza et al, 2013; Peters 2008; Peters et al 2012; Sartor et al., 2012). In particular, gender-segregated group counselling sessions have also been shown to be more effective in drug courts, especially when sessions for women are designed to work with gender-specific needs (Messina et al 2012; Liang and Long 2013).

Whether individual or in groups, counselling alone is not likely to be sufficient for drug court participants. Instead, the treatment programs offered as part of a drug court should be sufficiently funded, chosen/developed based on documented evidence of effectiveness and, therefore, adhere to best-practice principles. This, according to the general correctional (Andrews et al., 1990; Andrews and Bonta 2010; Gendreau 1996; Hollins 1999) and drug court literature (Gutierrez and Bourgon, 2012) means that drug courts should favour treatments that:

- include behavioural strategies (incentives and sanctions) and cognitive behavioural counselling interventions;
- are carefully documented with treatment manuals;
- involve treatment providers who are appropriately trained and adequately equipped to offer treatment in accordance with the relevant guidelines and manuals (see Goldstein et al 2013; Southam-Gerow and Mcleod 2013);
- are adequately funded (Gendreau and Andrews 1989) to maintain fidelity to the treatment model throughout the entirety of the treatment program, including sufficient funding to support the use of homework style activities that reinforce treatment goals (Kazantzis et al. 2000; MacDonald and Morgan, 2013; Sobell and Sobell, 2011); and
- are subject to ongoing implementation monitoring and outcome evaluation. This includes the extent to which those programs are monitoring and evaluating their own performance, and the extent to which this information is relayed back to the drug court program (Blair et al. 2016).

Box 24: NACDP Best Practice Standards (Treatment)

Treatment modality - Participants meet with a treatment provider or clinical case manager for at least one individual session per week during the first phase of the program. The frequency of individual sessions may be reduced subsequently if doing so would be unlikely to precipitate a behavioral setback or relapse. Participants are screened for their suitability for group interventions, and group membership is guided by evidence-based selection criteria including participants' gender, trauma histories and co-occurring psychiatric symptoms. Treatment groups ordinarily have no more than twelve participants and at least two leaders or facilitators.

Evidence based practices - Treatment providers administer behavioural or cognitive-behavioural treatments that are documented in manuals and have been demonstrated to improve outcomes for addicted persons involved in the criminal justice system. Treatment providers are proficient at delivering the interventions and are supervised regularly to ensure continuous fidelity to the treatment models.

Medications - Participants are prescribed psychotropic or addiction medications based on medical necessity as determined by a treating physician with expertise in addiction psychiatry, addiction medicine, or a closely related field.

Peer-support groups - Participants regularly attend self-help or peer support groups in addition to professional counselling. The peer support groups follow a structured model or curriculum such as the 12-step or Smart Recovery models.¹⁹ Before participants enter the peer support groups, treatment providers use an evidence-based preparatory intervention, such as 12-step facilitation therapy, to prepare the participants for what to expect in the groups and assist them to gain the most benefits from the groups.

Targets

As highlighted earlier in this report, the needs of drug-dependent offenders in the criminal justice system are significant, complex, and not limited to drug dependency alone. Therefore, the development and selection of treatment programs to support a drug court framework must be informed by the multiplicity of client needs, including criminogenic needs and criminal thinking patterns. Selecting an evidence-based multi-target program – one which addresses both drug use and criminal thinking – may be preferable to selecting a series of separate and disconnected programs that do not operate consistently.

Available to a drug court program are a number of cognitive and behavioural therapy programs which have, to varying degrees, demonstrated success in treating drug use and offending. These include:

- Moral Recognition Therapy (MRT)
- Reasoning and Rehabilitation (R&R)
- Thinking for Change (T4C)
- Relapse Prevention Therapy (RPT)
- The Matrix Model

Of these, only the Matrix Model and Relapse Prevention Therapy have been specifically designed to treat substance abuse among criminal offending populations, however Moral Recognition Therapy has been shown to be successfully adaptable to the treatment of drug use (Bahr et al. 2012;

Wanberg & Milkman, 2006) and has been successfully used with drug court participants (Cheesman and Kunkel 2012; Heck 2008; Kirchner and Goodman 2007). Although not specifically an analysis of drug court programs, a review of drug treatment in general has found that drug treatment can reduce reoffending, and that the most successful modalities are those psychosocial approaches and therapeutic communities, which are common features of most residential treatment programs (Holloway et al. 2006). In fact, most recently, a review of systematic reviews by Holloway & Bennett (2016) concluded that therapeutic communities was the only model of treatment delivery that demonstrated consistent evidence of effectiveness.

Settings

In terms of residential and non-residential (out-patient) treatment, there is no specific or strong evidence in favour of either for a drug court program. Instead, the research evidence favours those drug court programs that utilise multiple treatment settings as part of a broader continuum of care that can be tailored to suit individual treatment needs (Carey et al. 2012; Koob et al 2011; McKee 2010). Importantly, drug courts with access to multiple treatment settings have the capacity to: (a) respond more appropriately and more quickly to those who relapse; and (b) graduate clients from high-intensity to low-intensity as treatment goals are achieved. According to Krebs et al (2009), the most effective drug treatment programs have the capacity to provide a gradual and seamless transition across a continuum of treatment intensity. Specifically, it is considered preferable that high-intensity outpatient treatments (9-19 hours per week) exist between residential and low-intensity outpatient programs (9 hours per week or less) (McKay 2009; Weiss et al., 2008).

Importantly, the drug treatment literature confirms that inadequate or inappropriate treatment placement has the potential to produce negative treatment outcomes (Magura et al., 2003). The same is true of the criminal justice literature, except that inappropriate treatment placement may also lead to higher levels of recidivism and reoffending (Lovins et al., 2007; Lowenkamp and Latessa 2005; Wexler et al. 2004). Requiring residential placement for clients not in need of residential care can be counterproductive to treatment, as shown by Reich et al. (2016) in the analysis of data for 400 drug court participants. Placement in residential rehabilitation increased the likelihood of program failure and re-arrest when compared with outpatient settings, even after actuarial risk scores had been accounted for. These less favourable outcomes were particularly pronounced for program participants assessed as being low risk, or in the case of other studies, younger offenders who may be more at risk of influence from antisocial peers (DeMatteo et al 2006; Lowenkamp and Latessa 2004; McCord 2003; Petrosino et al 2000; Szalavitz, 2010).

Assuming that residential treatment is not contraindicated, participation in such programs appear to be more effective when a broad range of treatments and interventions are involved, such as individual and group counselling as well as life skills training, employment or training options and recreation options (NSW Health 2007). Although detoxification can help manage symptoms of withdrawal and can be the starting point for effective long-term addiction treatment, detoxification alone is rarely sufficient to help addicted individuals achieve long-term abstinence (NIDA 2009). It was therefore recommended that:

- Drug courts targeting high-risk and high-need offenders will require a range of residential and outpatient services.

- High-intensity outpatient services should exist as part of the transitional treatment arrangements for clients exiting residential care.
- Clients should not be placed into residential treatment unless otherwise indicated by appropriate and validated screening.
- Each individual must receive treatment in the setting best suited to their individual treatment needs.
- Treatment services should operate across a continuum of care that is, where possible, transitional and seamless to the client.

Equity and Diversity

Culturally appropriate treatment options

Locating or developing culturally-sensitive treatment options should be a matter of priority for drug court programs. The over-representation of Indigenous Australians in the criminal justice system necessitates the clear articulation of strategies which improve equity and, where possible, positively target specific cultural needs. In the former drug court in Queensland, for example, statistical analysis revealed that Indigenous offenders were no more or less likely to graduate from the program. However, the referral of Indigenous offenders--approximately 10 percent of all referrals--was lower than anticipated in all five courts (Payne 2008), particularly in the northern courts of Cairns and Townsville (Payne 2005). At the time of evaluation, the lower than expected referral rates were attributed to:

- Limited dissemination of program information to local Indigenous communities and local Indigenous legal practitioners, including the Aboriginal Legal Aid Service;
- Problems in communicating and establishing a good rapport with Indigenous offenders at the time of referral; and
- The application of eligibility criteria which inadvertently prohibited many Indigenous offenders from participating on the drug court program – including violent offending histories, alcohol abuse, and residential status, among others.

Programs elsewhere in Australia have also struggled to encourage greater referral and participation rates for Indigenous offenders. The consultations conducted for this review have suggested that the availability of culturally sensitive treatment programs may play an important role in limiting the willingness of drug-dependent Indigenous offenders to engage with an intensive drug rehabilitation program. Identifying and connecting the drug court with culturally sensitive treatment programs is, therefore, essential if more Indigenous offenders are to be engaged and successfully complete an intensive program of court-supervised drug treatment. In the broader international drug court literature, the need to ensure equity of referral, access and service provision for historically disadvantaged populations has been widely acknowledged and more recently enshrined into the Drug Court Best Practice Standards:

Citizens who have historically experienced sustained discrimination or reduced social opportunities because of their race, ethnicity, gender, sexual orientation, sexual identity, physical or mental disability, religion, or socioeconomic status receive the same opportunities as other citizens to participate and succeed in the Drug Court (NADCP).

Box 25: NADCP Best Practice Standards (Equity)

- **Equivalent Access** - Eligibility criteria for the Drug Court are non-discriminatory in intent and impact. If an eligibility requirement has the unintended effect of differentially restricting access for members of a historically disadvantaged group, the requirement is adjusted to increase the representation of such persons unless doing so would jeopardize public safety or the effectiveness of the Drug Court. The assessment tools that are used to determine candidates' eligibility for the Drug Court are valid for use with members of historically disadvantaged groups represented in the respective arrestee population.
- **Equivalent Retention** - The Drug Court regularly monitors whether members of historically disadvantaged groups complete the program at equivalent rates to other participants. If completion rates are significantly lower for members of a historically disadvantaged group, the Drug Court team investigates the reasons for the disparity, develops a remedial action plan, and evaluates the success of the remedial actions.
- **Equivalent Treatment** - Members of historically disadvantaged groups receive the same levels of care and quality of treatment as other participants with comparable clinical needs. The Drug Court administers evidence-based treatments that are effective for use with members of historically disadvantaged groups represented in the Drug Court population.
- **Equivalent Incentives and Sanctions** - Except where necessary to protect a participant from harm, members of historically disadvantaged groups receive the same incentives and sanctions as other participants for comparable achievements or infractions. The Drug Court regularly monitors the delivery of incentives and sanctions to ensure they are administered equivalently to all participants.
- **Equivalent Dispositions** - Members of historically disadvantaged groups receive the same legal dispositions as other participants for completing or failing to complete the Drug Court program.
- **Team Training** - Each member of the Drug Court team attends up-to-date training events on recognizing implicit cultural biases and correcting disparate impacts for members of historically disadvantaged groups.

Identifying culturally sensitive and indigenous specific services will be a challenge for any drug court program. However, above all else it is important that those services not only meet best practice treatment guidelines for the alcohol and other drug sector, but also engage in best practice principles specific to the provision of Indigenous services. Unfortunately, there is still limited evidence available in Australia about what constitutes good practice for Indigenous-specific drug and alcohol treatment programs, due in large part to the lack of quality program evaluation. Of that research which does exist, the conclusions are drawn principally from research into non-Indigenous treatment programs or Indigenous crime prevention programs more broadly.

In a review conducted by the National Drug Research Institute (Strempel et al. 2004), the elements of best practice across a range of Indigenous drug and alcohol projects were examined, including key features such as the project characteristics, whether a program is accountable to the Indigenous community, whether the program objectives meet community needs, and whether programs are adequately funded and staff (including management) are appropriately and adequately trained. In their conclusion, 'best practice' projects were identified as those that, in addition to using proven treatment and intervention methods, also demonstrated:

- effective management structures and procedures;
- a commitment to staff training and the provision of ongoing opportunities for professional development;
- utilisation of multi-strategy and collaborative approaches to connect with other service providers; and
- strong leadership and funding that was adequate and certain.

While these principles are primarily focused on the implementation of programs, Taylor et al. (2010) suggested that for Indigenous programs, the processes undertaken to implement services are as important elements of good practice as the actual services delivered.

Also important is the need for programs to be culturally safe (Williams 1998). The concept of cultural safety can be defined as:

...more or less—an environment, which is safe for people; where there is no assault, challenge or denial of their identity, of who they are and what, they need. It is about shared respect, shared meaning, shared knowledge and experience, of learning together with dignity, and truly listening (Williams 1998: 2).

For a program or service to be culturally safe it requires:

- respect for culture, knowledge, experience, obligations;
- no assault on a person's identity;
- clients to be treated with dignity;
- clearly defined pathways to empowerment and self-determination;
- culturally appropriate service delivery/environment;
- the right to promote, develop and maintain own institutional structures, distinctive customs, traditions, procedures and practices;
- recognition of more than one set of principles or way of doing things;
- access to organisational and communication skills, financial resources, administration support, appropriately trained and resourced staff, and political resources, which are prerequisites for effective participation in the system of the 'dominant culture';
- commitment to the theory and practice of cultural safety by personnel and trained staff;
- debunking the myth that all Indigenous people are the same;
- working with where people are at and not where you want them to be; and
- recognition of the individual right for persons to make their own mistakes (Williams 1998: 6–7).

Similarly, international literature from the United States, Canada and New Zealand suggests that a strong focus on spirituality and culture is good practice in Indigenous residential treatment programs (eg Adamson et al. 2010; Health Canada 2010; Nebelkopf & Wright 2011; Paki 2010).

Principles of good practice can also be drawn from other areas of community-based service delivery for Indigenous communities, including crime prevention. Past research has shown that projects delivered in regional and remote Indigenous communities need to:

- involve local Indigenous persons in the development of the project, including Elders and other respected persons from the community;

- promote the project within the wider community and work to build community support and where possible, involvement;
- involve Indigenous personnel in the delivery of project activities and where this is not possible, ensure staff are provided with appropriate and adequate cultural awareness and sensitivity training;
- adopt an holistic approach to Indigenous health and wellbeing, which takes into consideration the range of societal, cultural, community, family and individual factors that may impact upon a person's behaviour;
- be sensitive to the traditional value systems and practices of the particular community in which they are being implemented and adapt the mode of delivery accordingly;
- meet the needs of Indigenous people at risk of becoming involved in crime by providing Indigenous specific content;
- engage the participant's family and community in programs and services;
- develop strategies to overcome language and literacy barriers;
- consider eligibility criteria where programs are open to both Indigenous and non-Indigenous participants to ensure that Indigenous people can access the program; and
- work to build the capacity of local communities to continue to develop and implement initiatives to improve community safety;
- establish and strengthen relationships with Indigenous persons who are able to mentor others;
- be supported by good governance at the organisation, community and government levels;
- have ongoing government support including human, financial and physical resources; and
- include measures of performance that go beyond reductions in crime and victimisation rates (AIC 2012; Cunneen 2001; Robinson et al. 2009; SCAG 2009; SCRGSP 2009).

An additional challenge to these programs is their ability to identify and support members of the stolen generations. The evaluation of the Bringing Them Home and Indigenous mental health programs identified a number of issues related to the identification and support of members of the stolen generations, in particular first generation members (Wilczynski et al. 2007). In order to overcome these issues, Wilczynski et al. (2007) suggested a number of good practice principles, many of which feed into the good practice in drug and alcohol treatment service delivery for Indigenous people. These good practice principles include:

- Locating services in Aboriginal community controlled organisations; in areas easy to access (eg near public transport); and not near places that have negative associations for Indigenous people.
- Adequate services are provided to the whole catchment area through the use of regular outreach services and priority access is given to first generation members.
- Where possible, flexibility is given to the client's choice of counsellor (eg Indigenous vs non-Indigenous or old vs young).
- The service delivery model extends beyond the mainstream clinical model to include more informal and flexible activities. Liaising with stolen generations organisations to ensure that these services meet the needs of its members.

- Inter-agency relationships are established between programs supporting members of stolen generations.
- Close working relationships should be developed and maintained with all relevant government and non-government services.
- Staff members are able to access and participate in appropriate training on a regular basis.
- Regular awareness raising campaigns and activities are conducted in local communities so the knowledge of the service existence throughout the catchment area.
- Regular evaluation and monitoring activities are undertaken to inform service delivery on an ongoing basis (Wilczynski et al. 2007: 102–103).

Identifying culturally appropriate and safe services is indeed challenging, but doing so does not itself guarantee better outcomes for Indigenous drug court participants. Not all Indigenous participants will require (or want) Indigenous specific services, and no single Indigenous service will necessarily be appropriate for every Indigenous offender. Importantly, the issue of ‘trust’ featured heavily in the consultation responses for this review, highlighting that what matters most is not whether the service is Indigenous-specific, but the degree to which Indigenous clients have faith in the court and confidence in the treatment services being provided. Specifically, it was noted that to build trust and confidence in the court may take significantly longer for Indigenous participants, and the provision of Indigenous-specific services should not be seen as a one-size-fits all strategy for improving Indigenous participation and success. Instead, like any participant, Indigenous offenders should be afforded contact with clinical and other treatment options with which they have the greatest chance of productive engagement. Although this necessitates the identification and utilisation of Indigenous-specific and culturally sensitive services within a drug court, it does not necessitate the use of those services for all Indigenous clients unless there is likely to be a strong therapeutic fit.

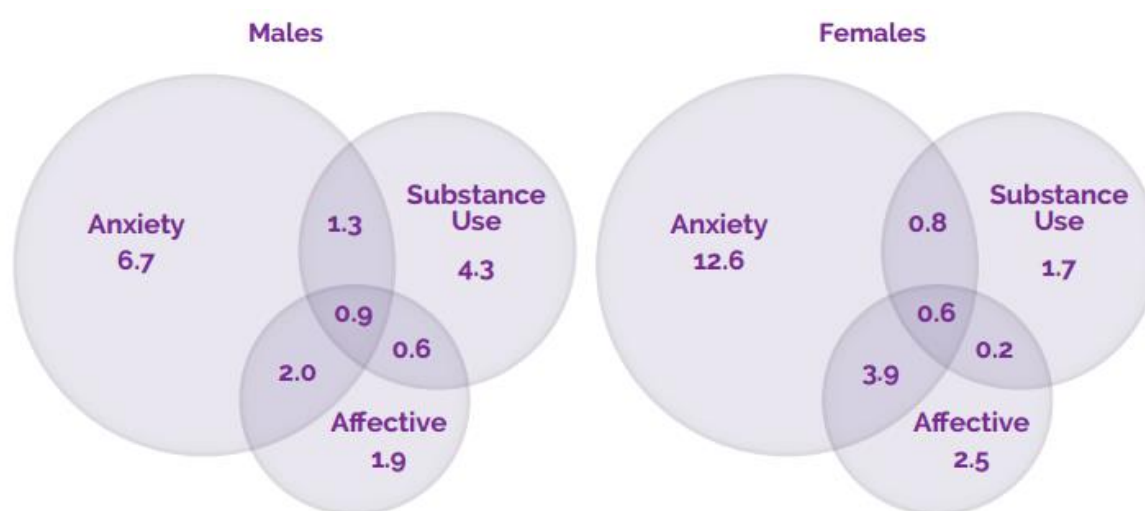
While it may be difficult to identify, locate and connect clients to Indigenous-specific treatment services, having a ‘culturally safe’ drug court team should be a matter of priority. This is especially the case for drug courts where the multidisciplinary team and the judicial status hearings are both seen as key functional elements of the overall therapeutic program. Any value gained by the use of Indigenous-specific treatment programs may be significantly diminished if the broader therapeutic functions of the drug court do not provide for a culturally safe therapeutic environment. Having Indigenous representation on the drug court team and utilising Indigenous case managers for the day-to-day supervision and motivational interviewing activities may be more beneficial than locating Indigenous-specific treatment services alone.

Responding to comorbidity and co-occurring disorders

In Australia, mental disorders are the third leading cause of burden of disease following cancer and cardiovascular disease (CVD) (Begg et al., 2008). Research conducted on the general population indicates that approximately one in two people will develop a mental disorder at some point in their life (Slade et al. 2015; Kessler et al. 2005; Slade et al. 2009). The 2007 Australian National Survey of Mental Health and Wellbeing (NSMHWB) found that more than 41% of Australian adults (45% of men and 38% of women) had experienced a substance use, anxiety, or mood disorder in their lifetime (Begg et al., 2008). The projected lifetime prevalence of these disorders is 28%, 25%, and 23% respectively (McEvoy et al. 2011). Just over 10% of Australian adults had experienced two classes of mental disorders, and just over 4% had experienced three (Begg et al., 2008).

For drug courts, a key consideration is the extent to which those with a substance use disorder are also likely to present with other co-occurring mental health disorders. Some insight into this is provided in Figure X, adapted from estimates developed by Teeson and colleagues in 2009. Although these data are population estimates and are not limited to those who have regular contact with the criminal justice system, the numbers are nevertheless informative. For example, of those males estimated to have a substance use disorder, one in three (31%) are estimated to also have at least one co-occurring anxiety or affective disorder. For women, the estimate is closer to one in two (44%) (Teeson et al 2009).

Figure 2: Prevalence (%) of single and comorbid DSV-IV affective, anxiety and substance use disorders amongst Australian males and females in the past 12 months.



Source: Teeson et al. (2009)

Further disaggregation of these data (see table X) shows that for those with a substance use disorder, depression is the most common co-occurring affective disorder (16.1% for men and 20.3% for women), followed by dysthymia – a mild but persistent depression. For co-occurring anxiety disorders, the most common among men is a Generalised Anxiety Disorder (GAD) (11.5%), while for women the most common is Post Traumatic Stress Disorder (PTSD) (12.6%).

Table 17: Prevalence (%) of mental health disorders in the past 12 months among adults with substance use disorders in the 2007 National Survey of Mental Health and Wellbeing.

Disorder	% Men	% Women	% Total
Affective disorders			
Major depressive disorder	16.1	20.3	17.4
Dysthymia	7.5	7.9	7.6
Bipolar affective disorder	3.9	5.1	4.3
Any affective disorder	19.1	22.0	20.0
Anxiety disorders			
Generalised anxiety disorder (GAD)	11.5	10.7	11.3
Social phobia	10.9	14.7	12.1
Post traumatic stress disorder (PTSD)	9.3	19.8	12.6
Panic disorder (with or without agoraphobia)	6.6	4.1	5.8
Obsessive compulsive disorder (OCD)	9.1	10.2	9.5
Agoraphobia (without panic disorder)	2.3	4.7	3.1
Any anxiety disorder	28.1	38.5	31.4
Any disorder (affective/anxiety)	31.1	44.0	35.2

Source: Teeson et al. (2009)

In criminal justice populations, it has long been established that both substance use and other mental health related issues are disproportionately over-represented, so these aforementioned population estimates are just the starting point. Although difficult to measure among criminal justice populations (see Forsythe 2013), the most recent Australian work nevertheless suggests a high incidence of concurrence and comorbidity. For example, Forsythe and Gaffney (2012) reported on a series of pilot mental health data from the Australian Institute of Criminology's Drug Use Monitoring in Australian project. In particular, the sample of police detainees in that study were asked to answer a series of questions which comprise the Corrections Mental Health Screening tool. Overall, 46 percent of male detainees, and 64 percent of female detainees, screened as likely suffering a diagnosable mental health condition not including substance abuse disorders.

There is, therefore, an ever apparent need to recognise the prevalence and complexities of concurrent and comorbid disorders in the criminal justice system. This is for a number of reasons, not least of which is because some studies have shown that clients with comorbid mental health and substance use disorders have poorer treatment outcomes (Lubman et al 2007; Schafer and Najavitis 2007; Siegfried 1998), often continuing to drink or use drugs more, be in poorer physical and mental health, and display poorer functioning following treatment (see Milby et al 2015; Hildebrand et al. 2015; SAMHSA 2005; Mills et al. 2007). For drug courts in particular, understanding the contribution of these other factors can be important in tailoring appropriate treatment interventions and court-level responses to non-compliance. Accordingly, the US-based Co-Occurring Centre for Excellence (COCE), in their 2006 report on the *Overarching Principles to Address the Needs of Persons with Co-Occurring Disorders* identified 11 consensus-based principles that guide system and clinical responses to people with co-occurring disorders. Those of specific relevance to a drug court include:

1. Co-occurring disorders (COD) are to be expected in all behavioural health settings, and system planning must address the need to serve people with COD in all policies, regulations, funding mechanisms and programming.
2. An integrated system of mental health and addiction services that emphasizes continuity and quality is in the best interest of consumers, providers, programs, funders and systems.
3. Behavioural health systems must collaborate with professionals in primary care, human services, housing, criminal justice, education, and related fields in order to meet the complex needs of persons with COD.
4. Co-occurring disorders must be expected when evaluating any person and clinical services should incorporate this assumption into all screening, assessment and treatment planning.
5. Within the treatment context, both co-occurring disorders are considered primary.
6. Empathy, respect and belief in individual's capacity for recovery are fundamental provider attitudes.
7. Treatment should be individualised to accommodate the specific needs, personal goals and cultural perspectives of unique individuals in different stages of change.

Trauma-informed care

Among the various forms of comorbidity, the history of trauma, its link to post-traumatic stress disorder (PTSD), and its consequences for both drug use and crime are frequently documented. According to the US Substance Abuse and Mental Health Services Association (SAMHSA) trauma can have lasting effects on an individual's physical, social and emotional function, each with significant implications for engagement in and compliance with court supervision and drug treatment orders:

"Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being." (SAMHSA, Trauma and Justice Strategic Initiative, 2012, p. 2)

Consequently, it is suggested (SAMHSA 2012) that a trauma-informed drug court is one that (1) recognises the widespread impact of trauma; (2) understands potential paths for healing; (3) recognises the signs and symptoms of trauma in staff, clients, and others involved with the court; and (4) responds by fully integrating knowledge about trauma into policies, procedures, practices and settings.

Identifying drug court participants with a history of trauma and/or the presence of PTSD should be an essential component of the drug court assessment process, both at the time of commencement and throughout the duration of participation. There are several assessment and screening tools that can be used for this purpose, including the Primary Care PTSD Screen (PC-PTSD), the PTSD Checklist – Civilian Version (PCL-C), the Trauma Symptom Inventory (TSI), and the Impact of Events Scale – Revised (IES-R). Alternatives also exist in the form of the Stressful Life Events Screening Questionnaire – Revised, the Life Events Checklist, and the Life Stressor Checklist, and the Trauma History Screen. Importantly, the assessment and screening for PTSD should be conducted by trained assessors with knowledge of and specialised skills in the identification and treatment planning for participants with a history of trauma. In particular, consideration should be given to the

identification of situations and circumstances that have the potential to re-traumatise participants, as well as strategies for managing stressful situations when they occur.

The potential for re-traumatisation is considerable in the drug court program (SAMHSA 2012), and so consideration should also be given to the modification of key drug court components, where possible. For example, individualised treatment plans should be developed in an effort to tailor services to help treat PTSD and its interaction with substance use and crime. Further, court supervision and compliance mechanisms should be tailored taking into consideration behaviours that are precipitated by PTSD. For example, it might be necessary for the court to moderate sanctions specifically in response to behaviours directly linked to PTSD symptoms. Similarly, court appearance schedules, or the practice of the court generally, may need to be modified in an effort to minimise stress or anxiety.

Box 26: Queensland Stakeholder and Consultation Feedback (Drug Treatment)

- Concerns were raised about the former courts heavy focus on substance use and criminal thinking, at the cost of other potentially more equally valuable outcomes such as employment and education.
- Earlier program had insufficient focus on criminal thinking and criminogenic needs. Was heavily focused on AOD issues.
- ‘Keeping clients busy’ was among the major struggles of the former court. More options were needed to engage out-patient and other clients in activities which minimised criminal and drug using opportunities, replacing them with pro-social or well-being based activities.
- Interventions need to be trauma informed.
- Interventions need to include programs that support clients to develop the social skills necessary for prosocial and productive participation in the community.
- Have to give the client ownership of their issues and not do everything for them.
- Need for employment services to be involved with these clients. Need to break the barriers otherwise clients face continued setbacks and vulnerability.
- ATODS running the MRT program with inmates at Lotus Glen CC.
- Participants who attended rehabilitation seemed to do better than out-patient clients. From the client perspective, out-patient options are unsuitable for the early phases of the program since it makes no effort to manage the “free time and criminal thinking”.
- If a phased program is needed, then the initial phase should be longer taking into consideration changes in an offender’s cognitions. There is significant and lengthy time needed for high-risk high-need offenders to adapt to a new way of thinking.

Summary and conclusion

Best practice – what does the evidence say?

The principal and most significant active component of any drug court program is the treatment of drug use and criminogenic needs. Drug courts work more favourably than alternative programs because their non-adversarial therapeutic approach motivates participants to engage with treatment for periods of time long enough to activate behavioural change. Coupled with evidence-

based and best-practice treatments, suitably tailored to individual needs, drug courts are well placed to transition high-risk and high-need offenders into relatively crime and drug free lifestyles.

Accordingly, the identification of treatment programs underpinning a drug court should be made cognisant of the best practice principles underpinning the provision of drug treatment generally. In particular, drug courts should (Holloway et al. 2006; NIDA 2009; NSW Health 2007):

- ensure that each client's needs are assessed individually so they are matched with appropriate treatment settings, interventions and services, based on accurate assessments;
- include medications as an important element of treatment for many patients, especially when combined with counselling and other behavioural therapies;
- recognise the high level of comorbidity between drug use and mental illness, which suggests that patients must be assessed for co-occurring problems and treated accordingly; and
- continuously monitor drug use treatments during treatment as lapses can occur.

Number of treatment options

Determining the best number of treatment providers to support a drug court program is a difficult task and the evaluation and best practice literature provides relatively little guidance. On the one hand it is argued that individual treatment plans should be tailored and individualised, suggesting that treatment options should be many and varied. On the other, meta studies and evaluations have shown that courts with only a small number of treatment providers produce more favourable drug treatment and recidivism outcomes. Overall, the literature suggests that the most important ingredient to a successful drug court is best-practice and evidence-based treatments, provided by agencies who share the non-adversarial and therapeutically-inclined philosophy of the drug court, but who respect the courts obligations to manage and respond appropriately to non-compliance.

Length and intensity of treatment

In the general drug treatment literature, for example, the evidence suggests that high need clients should be engaged in treatment for no less than 90 days (Simpson et al; NIDA 2009). For criminal justice clients, however, the most favourable outcomes are found when drug dependent offenders complete a period of treatment that lasts for between nine and twelve months (Peters et al., 2002; Huebner & Cobbina, 2007) and during which time a client receives between six and ten hours of drug treatment and counselling per week in the initial phases (Landenberger & Lipsey, 2005).

In practice therefore, a drug court should aim to:

- Provide drug treatment that is no shorter in length than is considered best-practice in the drug treatment literature (90 days), but aim for a continuum of treatment that facilitates contact with treatment services for a period of between 9 and 12 months.
- Individualise treatment plans (duration and intensity) to meet individual client needs. This includes extending treatment or lessening treatment where deemed appropriate by a qualified treatment clinician.
- Communicate to prospective participants clearly and at the earliest possible opportunity the expectations of the court regarding the length and intensity of treatment. Participants should understand that drug treatment is just one part of their multifaceted rehabilitation

plan and that their commitment to the court will extend beyond the period of drug treatment alone.

- Combine longer drug treatment interventions should be preferred when coupled with key elements of rehabilitation best practice, such as individualised case management, motivational interviewing and cognitive behavioural interventions.

Modality

According to the general correctional (Andrews et al., 1990; Andrews and Bonta 2010; Gendreau 1996; Hollins 1999) and drug court literature (Gutierrez and Bourgon, 2012) drug courts should favour treatments that: include behavioural strategies (incentives and sanctions) and cognitive behavioural counselling interventions; are carefully documented with treatment manuals; involve treatment providers who are appropriately trained and adequately equipped to offer treatment in accordance with the relevant guidelines and manuals (see Goldstein et al 2013; Southam-Gerow and Mcleod 2013); are adequately funded (Gendreau and Andrews 1989) to maintain fidelity to the treatment model throughout the entirety of the treatment program, including sufficient funding to support the use of homework style activities that reinforce treatment goals (Kazantzis et al. 2000; MacDonald and Morgan, 2013; Sobell and Sobell, 2011); and are subject to ongoing implementation monitoring and outcome evaluation. This includes the extent to which those programs are monitoring and evaluating their own performance, and the extent to which this information is relayed back to the drug court program (Blair et al. 2016).

Settings

In terms of residential and non-residential (out-patient) treatment, there is no specific or strong evidence in favour of either for a drug court program. Instead, the research evidence favours those drug court programs that utilise multiple treatment settings as part of a broader continuum of care that can be tailored to suit individual treatment needs (Carey et al. 2012; Koob et al 2011; McKee 2010). Accordingly, the settings within which treatment is offered need not be directed specifically by the drug court program, but identified and delivered according to individual treatment need and prior experience and history of treatment in different contexts. However, in principle:

- Drug courts targeting high-risk and high-need offenders will require a range of residential and outpatient services;
- High-intensity outpatient services should exist as part of the transitional treatment arrangements for clients exiting residential care;
- Clients should not be placed into residential treatment unless otherwise indicated by appropriate and validated screening;
- Each individual must receive treatment in the setting best suited to their individual treatment needs; and
- Treatment services should operate across a continuum of care that is, where possible, transitional and seamless to the client.

Equity and diversity

It is important supporting the drug court program are drug treatment programs and services designed to cater to a diverse range of potential participants. Culturally safe drug treatment services

should be identified to support Aboriginal and Torres Strait Islander people, in addition to the use of culturally safe practices within the drug court program itself. Encouraging the presence of Indigenous elders into the drug court team, where requested and appropriate, may be an important first step in building a drug court program that seeks to provide a culturally safe environment beyond just the selection of indigenous-specific treatment providers.

Further, recognising the high prevalence of mental health and other comorbidities among high-risk and high-need populations, including the history of trauma and PTSD, is critical to the success of a drug court program. Specifically tailoring treatment programs, as well as court room practices, is key to ensuring that the drug court program provides a therapeutically safe environment in which treatment engagement can be facilitated and where specific relapse triggers can be identified and managed.

Recommendations

To maximise the outcomes of any reinstated drug court program in Queensland, the following recommendations should be considered:

- 1) The drug court should preference the use of a small number of treatment providers, capable of delivering a wide range of treatment services.
- 2) Individual drug treatment plans should be developed by trained health professionals. Drug treatment location, length, setting and modality should be decided based on clinical indications and best-practice principles in the provision of drug treatment. As a guide:
 - a. Participants should be engaged in treatment for no less than 90 days, however ongoing treatment of up to 12 months is not uncommon for high-need drug court clients.
 - b. Participants should not receive more intensive treatments than is otherwise clinically indicated.
 - c. Detoxification services should be available, however, custodial locations should not be used to facilitate detoxification.
 - d. Treatment progress should be regularly monitored and treatment intensity modified in response.
 - e. Individual-drug counselling sessions should be available to all participants at the commencement of their drug court order.
 - f. Where residential therapeutic communities are to be used, standards for group size, composition and staff training should be adhered to.
- 3) Cognitive and behavioural therapies should be used as the foundation of treatment for drug court clients. This should include relapse prevention therapies.
- 4) Services provided under the drug court program should be subject to ongoing performance monitoring, evaluation and improvement. Separate evaluations should be conducted in addition to drug-court specific evaluations.

Treating criminogenic needs

As stated earlier, criminal-thinking patterns are observed frequently among Drug Court participants (Jones et al., 2015) and may contribute to program failure (responsivity need) and criminal recidivism (criminogenic need) (Gendreau et al., 1996; Helmond et al., 2015; Knight et al., 2006; Walters, 2003). Some Drug Court participants have considerable difficulty seeing other people's perspectives, recognizing their role in interpersonal conflicts, or anticipating consequences before they act. Moreover, they may hold counterproductive attitudes or values, such as assuming that all people are untrustworthy and motivated to manipulate or dominate others. Given such antisocial sentiments, these participants are often viewed as suspicious or manipulative in character, get into repeated conflicts with others, and fail to learn from negative social interactions.

Several manualized cognitive-behavioural interventions address criminal-thinking patterns among individuals addicted to drugs or charged with crimes. Evidence-based curricula demonstrating improved outcomes in Drug Courts and similar programs include but are not limited to Moral Reconation Therapy (Cheesman & Kunkel, 2012; Heck, 2008; Kirchner & Goodman, 2007), Thinking for a Change (Lowenkamp et al., 2009), and Reasoning & Rehabilitation (Cullen et al., 2012; Tong & Farrington, 2006). Other curricula focused specifically on the needs of men in the criminal justice system, such as Habilitation, Empowerment and Accountability Therapy (Turpin & Wheeler, 2012; Vito & Tewksbury, 1998) and Helping Men Recover (Covington et al., 2011), are undergoing development and effectiveness testing in Drug Courts.

Studies have not determined when delivering criminal-thinking interventions is most beneficial. Clinical experience suggests the most beneficial time to introduce these interventions is after participants are stabilized in treatment and no longer experiencing acutely debilitating symptoms such as cravings, withdrawal, or anhedonia (Milkman & Wanberg, 2007). Until participants are no longer in acute distress, expecting them to benefit from a cognitive-behavioural intervention that requires them to maintain consistent attention and cognitive endurance is unrealistic. Participants should be stabilized clinically before a Drug Court can reasonably expect them to think flexibly about the motivations for their behaviours and the potential ramifications of continuing in their current behavioural patterns.

Incorporating into a drug court treatments and program elements which address criminogenic needs other than drug use is essential to facilitate what Marlowe (2012) describes as "prosocial habilitation" and "adaptive habilitation". Specifically, prosocial habilitation recognises that many high-risk and high-need may not actively or naturally endorse pro-social attitudes or values and therefore lack the inclination to engage in prosocial activities such as work, schooling or pro-social parenting. Consequently, drug courts should afford opportunities to address 'criminal thinking' patterns using programs shown to be effective in reducing recidivism (Heck 2008; Knight et al., 2006; Lowenkamp 2009). Ideally, drug court participants should be afforded a minimum of 200 hours contact with best-practice programming involving cognitive behavioral interventions (see Bourgon and Armstrong 2005; Latessa and Sperber, 2010).

Adaptive habilitation, as described by Marlowe (2012), is required when high-risk offenders lack the necessary education, employment and life skills to adapt to a life without drug use and crime. As such, drug court programs must recognize the importance of upskilling their participants with the necessary skills to navigate the complexities of life after drug court (see Belenko 2006). Ideally, this means engaging offenders in the development of vocational skills, addressing educational deficits and improving daily living skills (cooking, homemaking, budgeting etc).

Consistent with the best-practice literature, CBT has been shown to be the most effective method in treating antisocial behavioral patterns and criminal thinking. Such interventions typically focus the participant to think about the triggers for their offending (the people, places and behaviors which make crime more likely to occur) and to recognize the errors in their thinking patterns and rationalizations (sense of hopelessness or victimism). Cognitive restructuring is then used to disrupt automatic thinking patterns and feelings that lead to participation in crime. According to Andrews and Bonta 2006), cognitive behavioural therapies offer a number of distinct advantages for addressing criminal thinking and antisocial behaviour patterns. First, CBT is an evidence based approach derived from scientifically evaluated theories of behavioural change. Second, CBT is based on active learning about current events and present criminogenic triggers, rather than behaviours and actions of the past. Third, it targets major criminogenic factors in a structured group setting and finally, it is based on programmatic elements proven to reduce recidivism (Ladenberger and Lipsey 2005).

Of the various CBT-based programs which exist, two have been subject to considerable evaluation with positive results. These are:

- **Reasoning and rehabilitation** – a program facilitated by trained practitioners for delivery with medium-to-high risk offenders. The program seeks to engage participants using cognitive and behavioural techniques to further develop lateral thinking skills, critical thinking skills, and social skills. Evaluations have demonstrated the program to be effective at reducing recidivism (Tong and Farrington 2006; Lipsey, Landenberger and Wilson 2007; Wilkinson 2005)
- **Thinking for change** – also known as TC4 is an integrated cognitive behavioural change program comprised of 25 lessons together with an aftercare program (Bush, Glick and Taymans 1997). The program is offered as a closed group, meaning that new members cannot join the intervention mid-cycle. Evaluations have similarly demonstrated TC4 as effective in reducing reoffending (Lowenkamp et al., 2009).

Notwithstanding the importance of individual programs and treatments for criminal thinking, the core programmatic element of the most instrumental benefit for a drug court program is quality case management. Case management is conceptualized as the coordination of services which best help individuals meet their specific needs and goals. In the drug treatment literature case management has been shown to improve treatment retention (Laken & Ager, 1996; Mejta, Bokos, Mickenberg, Maslar, & Senay, 1997; Rapp, Siegal, Li, & Saha, 1998; Siegal, Rapp, Li, Saha, & Kirk, 1997), while in the social and criminal justice literature it has been linked to the reduction of employment problems (McLellan et al 2003; Siegal et al., 1996) and the improvement of family functioning (Loudenburger & Leonardson, 2003; McLellan et al 2003; Sharlin & Shamai, 1995).

Of the three different case management models (minimal, brokerage and comprehensive), comprehensive case management is the most appropriate for a drug court program managing high-risk and high-need offenders (Hall, Williams and Reedy 2008). Comprehensive management is characterized by the provision of and support for intensive treatments and interventions, requiring frequent contact with participants and, as a consequence, lower than average caseloads per case manager (1:10, according to Hall, Williams and Reedy 2008). In their view, Hall and colleagues (2008) make a number of recommendations for the development of case management principles and programs within the drug court setting, including:

- Drug court systems should choose a case management model appropriate to their needs and services.

- Case managers should have formal training in the case management model and the duties and functions of a case manager.
- Case management involvement should begin with assessment of a potential participant for the drug court system.
- To avoid conflicting roles, the case manager should take care to align the tasks of the team members within their respective purviews.
- With the exception of reporting suspicion of child or elder neglect or abuse and duty to warn, the responsibilities of the case manager should not include reporting parole violations to the court.

The integration of various models of case management within drug court systems should include formal, rigorous, and ongoing evaluation of the implementation process and participant outcomes.

Table 18: Key research outcomes – Reasoning and Rehabilitation (CBT Programs)

Source	Method	Findings
Cann et al., 2003	Researchers utilized a retrospective, quasi-experimental design with matched groups to evaluate the impact of program participation on recidivism outcomes. The treatment group (N=2,195) consisted of individuals who participated in either R&R or ETS treatment between 1998 and 2000. The comparison group (N = 2,195) consisted of offenders who did not participate in either treatment program	<p>This study found no evidence that participation in the R&R and ETS programs reduced the probability of being reconvicted after release.</p> <p>Bivariate tests found no significant differences between the rates of reconviction between the treatment and comparison groups one year after release (18.1% vs. 19.9%). This finding held true two years after release as well, although the researchers do not report the proportions of either group who were convicted by this point.</p> <p>Separate bivariate analyses were conducted to test the individual impacts of participation in R&R and ETS, respectively. Once again, no significant differences were found at either the one or two year follow-up points.</p>
Falshaw et al., 2003; Falshaw et al., 2004	Researchers conducted a retrospective, quasi-experimental design with matched groups to evaluate the impact of program participation on recidivism outcomes. The treatment group (N=649) consisted of offenders who had participated in either Reasoning and Rehabilitation (R&R) or Enhanced Thinking Skills (ETS) programming between 1996 and 1998. The comparison group (N=1,947) consisted of offenders who had not participated in any cognitive skills programming while in prison. These individuals were matched to members of the treatment group on the following variables: race/ethnicity, sentence length, offense type, year of discharge, and risk of reconviction. Three comparison group members were matched with each treatment member. Researchers were unable to find matches for 13 individuals in the treatment group, who were then removed from the study sample. No	<p>The study found that participation in the R&R and ETS programs had no effect on reconviction over the two-year follow-up period.</p> <p>A logistic regression analysis controlling for differences between groups found that neither R&R nor ETS participation had a statistically significant effect on reconviction rates.</p> <p>Among those who recidivated, bivariate tests found that there was no significant difference between the treatment and comparison groups in the average time until first conviction.</p> <p>The researchers used bivariate tests to examine whether the programs had different effects depending on participants' level of risk to recidivate. They found that reconviction rates were slightly – though not significantly –</p>

Table 18: Key research outcomes – Reasoning and Rehabilitation (CBT Programs)

Source	Method	Findings
	<p>significant differences were found between the treatment and comparison groups on the matching variables.</p> <p>Researchers divided the treatment and comparison groups into four sub-groups based on risk: low, medium-low, medium-high, and high. They then conducted bivariate tests and multivariate analyses on the overall groups as well as the subgroups to test the impact of program participation on recidivism, which was defined as the reconviction rate for each group within two years after release. In the logistic regression analysis, researchers controlled for the following variables: ethnicity, age at first conviction, number of previous appearances, number of previous convictions, age at conviction for index offense, type of index offense, length of sentence, treatment participation, type of treatment (R&R or ETS), whether dropped out of treatment, and age at discharge.</p>	<p>lower for treatment group participants than for comparison group participants for the low-, medium-low, and high-risk groups, with the largest reduction occurring among the medium-low risk group (in which 21.7% of treatment group members were reconvicted, compared to 24.6% of the comparison group). However, in the medium-high risk group, rates of reconviction were higher for treatment group members than comparison group members (52.4% vs. 46.8%, respectively; again, this difference was not statistically significant).</p>
Friendship et al., 2002; Friendship et al., 2003	<p>Researchers utilized a retrospective, quasi-experimental design with matched groups to evaluate the impact of program participation on recidivism outcomes. The treatment group (N=667) consisted of individuals who participated in either R&R or ETS treatment between 1994 and 1996. The comparison group (N = 1,801) consisted of offenders who did not participate in either treatment program. These individuals were matched to the members of the treatment group on the following characteristics: current offense, sentence length, age at discharge, year of discharge, number of previous sentencing occasions, and probability of reconviction score. Researchers were unable to find an exact match for each treated offender for some of the matching variables; as a result, they selected comparison group members who were within a certain range of individuals in the treatment group on the matching variables. For each member of the treatment group, researchers first chose a similar group of offenders, and then randomly chose up to three individuals from this smaller group. In some cases, it was only possible to find one or two matches per treatment group member. After matching, significant differences were still found between the study groups on the following variables: risk score,[1] sentence length, age at first conviction, age at discharge, age at sentence, and number of previous sentencing occasions. All of these variables were included in a stepwise regression</p>	<p>This study found strong evidence that participation in the R&R and ETS programs reduced the probability of being reconvicted after release, particularly for those classified as medium-low or medium-high on a measure of risk to recidivate.</p> <p>The logistic regression analysis controlling for differences between groups found that participation in the R&R and ETS programs significantly reduced the probability of reconviction within two years after release from prison ($p<0.001$). The likelihood of reconviction was reduced by 55% for R&R participants and 52% for ETS program participants.</p> <p>The Cox survival analysis found that treatment (either through R&R or ETS) was significantly associated with reduced rates of reconviction over a five-year period after release ($p<0.001$). The researchers used both bivariate tests and logistic regression to examine whether the programs had different effects depending on participants' level of risk to recidivate.</p> <p>Bivariate tests examined four categories of risk: low, medium-low, medium-high, and high. These tests suggested that the program was most effective for the medium-low and medium-high risk groups, who were reconvicted at significantly lower rates than their respective counterparts in the comparison group within two years of release</p>

Table 18: Key research outcomes – Reasoning and Rehabilitation (CBT Programs)

Source	Method	Findings
	analysis, along with others that have been shown to be related to reconviction. The final logistic regression analysis, which was used to predict the probability of reconviction within two years of release from prison, only included those variables which were found to be significantly correlated with the outcome: treatment, OGRS risk score, ethnicity, and sentence length. These same variables were included in a survival analysis, which predicted reconviction over a five-year period using Cox regression. Results were presented by four sub-groups based on risk: low, medium-low, medium-high, and high.	<p>(18% vs. 32%, $p < 0.005$ for the medium-low group and 43% vs. 54%, $p < 0.05$ for the medium-high group). Although the low- and high-risk treatment group members were also reconvicted at lower rates than their respective comparison group counterparts, these differences were not statistically significant.</p> <p>In the logistic regression analysis, in contrast to the bivariate findings, no significant interaction effects on reconviction rates were found between risk score and program participation.</p>
Sadlier, 2010	<p>Using the Surveying Prisoner Crime Reduction (SPCR) survey, an existing longitudinal study of nearly 4,000 adult prisoners in England and Wales, the researchers identified 371 respondents who had participated in ETS. Complete data, including information on risk and needs assessment, criminal history and recidivism, were collected for 257 of those participants who made up the final treatment group. The comparison group was formed using propensity score matching on the non-participants based on several characteristics representing program suitability, static risk factors, and dynamic risk factors. The final comparison group was composed of 257 synthetic comparison observations, each representing the average of all the non-participants who were sufficiently similar to each treatment group member. However, as noted below, only 58% of the treatment group met the suitability criteria compared with 49% of the comparison group. Because this study was done retrospectively, it is not clear exactly what other factors played a role in determining who did receive treatment and who did not.</p> <p>After creating the comparison group, the researcher tested for significant differences across all of the original characteristics used in the matching process and found none. However, additional tests found that the treatment group had a longer sentence length and slightly more participation in other interventions. These factors were not controlled for in the final analyses.</p> <p>The outcomes measured in this study were the rate of reconviction, the rate of reconviction for a severe offense, and the number of offenses per 100 released prisoners. These outcomes were measured based on administrative data. The researcher conducted</p>	<p>Findings suggested that program participation significantly reduced recidivism rates at one year after release.</p> <p>At one year after release, 27.2 percent of the treatment group and 33.5 percent of the comparison group had been reconvicted ($p < 0.05$). No significant difference was found for reconviction for a severe offense.</p> <p>The number of offenses of which the study subjects were convicted within one year was also lower among the treatment group: the treatment group was convicted of 60.7 offenses per 100 released prisoners and the comparison group was convicted of 120.8 offenses per 100 released prisoners ($p < 0.001$).</p>

Table 18: Key research outcomes – Reasoning and Rehabilitation (CBT Programs)		
Source	Method	Findings
	bivariate tests comparing the average of each outcome for the treatment and comparison groups.	
Source: Adapted from abstracts and article summaries		

Transitional and aftercare

After the completion of any formal drug treatment program, the risk of relapse is high. According to McLellan and colleagues (2000) for example, as many as two in three drug treatment graduates will have relapsed within one year, with the risk of relapse being highest in the first three to six months of completion (Marlatt 1985; McKay 2005). For drug courts in particular, given the risks of re-engagement in criminal and other antisocial behaviour, these general clinical findings suggest that the treatment continuum must also include a system of ongoing case management and aftercare once formal contact with drug treatment service providers has concluded.

According to several meta-studies, drug courts that formalise mechanisms for the provision and facilitation of post-treatment support perform better and are more cost effective than courts which do not. In the multisite study by Carey and colleagues (2008) for example, drug courts were divided into two groups – those where the final program phase focused on relapse prevention and aftercare preparation, and those that did not – and in their analysis of program outcomes, the more effective courts were those that actively engaged their clients in relapse and aftercare strategies. In a more comprehensive analysis including a larger number of courts by the same authors (Carey et al., 2012) similar results were found. Specifically, the more effective drug courts were those that engaged their participants in relapse prevention therapies and prepared them for post-completion employment or education. Accordingly, the authors argue that drug courts that teach formal relapse prevention techniques are likely to significantly extend the benefits of treatment into the period after graduation.

How to provide continuing care, transitional and aftercare services to drug court graduates remains a challenge. In the former Queensland drug court, most graduates were sentenced to some form supervision with the department of corrective services, but this did not include any additional follow up by health or treatment service providers. Anecdotally, it has been suggested that some former Queensland drug court graduates were so concerned about their ability to cope after graduation that they openly welcomed or requested the imposition of supervision and drug testing requirements to ‘keep them on the right track’. Although debate remains about whether drug court graduates should be subject to ongoing criminal justice supervision, there is little doubt that drug court programs would benefit from maintaining contact, even if minimal and informal, with their graduates. For example:

- McKay (2009a) shows that periodic telephone calls to participants following successful drug treatment can improve the longevity of abstinence and reduce the probability of relapse (cf. McKay et al., 2013).
- Scott and Dennis (2012) found that it is possible to extend treatment benefits by inviting participants back to the program for brief recovery management check-ups.
- Goodley and colleagues (2006) demonstrated stronger and longer-lasting treatment benefits for clients who were provided with assertive post-treatment case management and periodic home visits

- Lash and colleagues (2004) found that ongoing aftercare attendance and, therefore, better long term treatment outcomes, could be achieved through praise and a small program of incentives
- According to McKay (2009b) the more successful aftercare strategies are those that have typically continued for at least 90 days and have been facilitated by trained counsellors, nurses, or case managers. In addition, aftercare contact is likely to be more successful if aimed at identifying early the potential warning signs of relapse and make suitable referrals if further treatment seemed warranted.

Beyond these studies, there is generally limited evidence on the best approaches to providing transitional and aftercare services. Where the drug treatment and drug court literature has examined the importance of aftercare, it is generally recognized that the most effective aftercare programs provide support for up to 12 months or longer, are adaptive to individual needs (McKay 2009) and include active efforts to deliver aftercare services to the individual, rather than relying on the individual to seek aftercare support (Godley et al., 2006). In this context, two different service delivery models have identified:

- Adaptive Telephone Continuing Care – comprised of telephone-delivered structured sessions of up to 30 minutes per week, graduated to monthly. The focus of these telephone sessions include the monitoring of symptoms and progress, the identification of problems and barriers to recovery, and concrete planning and problem solving for relapse (see McKay et al., 2005).
- Recovery Management Check-up (RMC) – comprised of three-monthly in-person patient interviews involving motivational interviewing and relapse prevention assessments (Dennis, Scott and Funk 2003; Dennis and Scott 2012).

Finally, there is an emerging literature which supports the development of aftercare strategies which see drug court graduates engaged with current participants in their capacity as program alumni (Burek, 2011; McLean, 2012). Although not well studied to date, developing a drug-court graduate alumni community and utilising their success as an example to current participants may serve to increase motivation for treatment and self-confidence about the likelihood of treatment success. In addition, the engagement of drug court alumni may also serve to strengthen the social bonds of graduates and afford opportunities for aftercare that improve longer-term drug use and recidivism outcomes.

Box 27: NACDP Best Practice Standards (Treatment)

Continuing care - Participants complete a final phase of the Drug Court focusing on relapse prevention and continuing care. Participants prepare a continuing-care plan together with their counsellor to ensure they continue to engage in prosocial activities and remain connected with a peer support group after their discharge from the Drug Court.

Aftercare - For at least the first ninety days after discharge from the Drug Court, treatment providers or clinical case managers attempt to contact previous participants periodically by telephone, mail, e-mail, or similar means to check on their progress, offer brief advice and encouragement, and provide referrals for additional treatment when indicated.

Box 28: Queensland Stakeholder and Consultation Feedback (Aftercare)

- The introduction of court-ordered parole as a sentencing option provided a potentially less intensive alternative sentencing option for prospective drug court clients. As a consequence, some offenders were inclined or encouraged to opt for a short prison sentence followed by court ordered parole.
- The prevailing focus of the former drug court, principally in its later years, was in managing and responding to non-compliance. Although it is important to respond appropriately to breaches, the over use of sanctions had led, in some circumstances, to voluntary termination. There was a view that some clients saw the drug court program as “too punitive and too much work” compared to alternative sentencing pathways.

Summary and recommendations

The risks of drug court participants resuming drug use and re-engaging in criminal activity, coupled with the decrease in levels of support and intervention post drug court completion point to the need for good transitional and after care services for drug court participants. The need for these services is also supported by the best practice standards on drug courts and the operational practices of drug courts in other jurisdictions.

The development of a transitional plan will ensure that drug court participants are linked to ongoing support services may assist in the maintenance of progress and benefits achieved during the drug court program.

As discussed in x-ref above, ideally this transition should occur while the participant is still subject to the order and should form part of their supervision and treatment program. Where this is not possible the court may decide to either vary the order by extending the period of supervision and treatment (but not beyond the term of imprisonment imposed) or transitional and aftercare support can be provided post-sentence after the offender is no longer subject to the order by connecting them with relevant services.

At the completion of a DTO, the participant's formal and mandated supervision and treatment requirements should end. However, taking into account offenders' ongoing risk of post-graduation reoffending and drug use relapse and that the immediate cessation of treatment and case management services may act as a key trigger for this risk, the drug court model should be guided by the following principles:

- The utilisation of best-practice relapse prevention training in the final phase of a drug court order is the most important tool available to the drug court for preventing or minimising post-graduation risks.
- Many drug court graduates will benefit from post-graduation transitional and aftercare support. Voluntary ongoing service contact should be encouraged and supported.
- Where possible, the drug court should develop a transitional strategy that provides opportunities for after-care contact and brief intervention, if required. This may take the form of a once-a-month phone call from the Drug Court Coordinator/Manager to newly graduated clients for up to six months.

- Consideration should be given to the development of a drug court graduate alumni program of activities through which former drug court participants can voluntarily participate.

Monitoring and evaluation

In the criminal justice context, programs that are subjected to ongoing monitoring and evaluation practices tend to outperform programs that do not, especially where those practices lead to incremental policy and programmatic changes which are aimed at improving individual and program-level outcomes. For drug court programs, both evaluation and ongoing performance monitoring practices have proven vital to sustaining effective programs and modifying ineffective ones.

In one of the first multi-site studies of drug courts by Carey and colleagues (2008), the data capture, program monitoring and evaluation practices of 18 drug courts were examined in an effort to determine how consistently each program adhered to the NADCP's eighth key component – that *monitoring and evaluation measure the achievement of program goals and gauge effectiveness*. Specifically, the authors classified each of the 18 drug courts on eight criteria, including whether:

- Drug court staff routinely collect and report program statistics
- The drug court has participated in evaluations conducted by an independent evaluator
- Drug court maintains an electronic database for monitoring clients
- The drug court uses their electronic database to enhance case management
- The drug court maintains paper filed for some records that are critical to an evaluation
- Regular report of program statistics has led to modifications in drug court operations
- The results of program evaluations have led to modifications in the drug court operations
- The drug court has participated in more than one evaluation conducted by an independent evaluator.

In their analysis, Carey and colleagues found that almost all of the 18 drug courts in their study had complied with the first four criteria. That is, almost all courts had been evaluated, had been using an electronic database for both case management and information capture and storage, and were routinely collecting and reporting program statistics. It was for the remaining four criteria that there existed some variation, and this variability proved important as an indicator of drug court success. Specifically, drug courts that sometimes relied on paper files to collate important records were likely to be more expensive and produce lower graduation rates. As a consequence, the cost benefit and recidivism outcomes of courts that still relied on paper files and records were not as favourable as those that maintained a full complement of electronic data recording services.

While collecting and storing program data is important, the full benefit of doing so is only likely to be realised if the drug court program itself is open to and capable of responding to these data. According to Carey and colleagues (2008), although cheaper to run in the longer term, programs that are resistant to evolution and data-driven modifications perform less favourably. They are likely to graduate fewer drug court participants and less likely to achieve favourable recidivism outcomes.

Key practice principles

Evaluating with transparency

Evaluation processes should be transparent, both in terms of the methodology used to evaluate programs and the dissemination of evaluation findings to relevant stakeholders (where appropriate). The development of an overarching evaluation framework will help further encourage greater transparency in evaluation methods and approaches. Future evaluation reports should clearly demonstrate how they adhere to the framework and requirements and, more importantly, where they do not adhere to them, the reasons for this and the implications for evaluation.

To provide an objective and impartial assessment of the effectiveness, efficiency and appropriateness of policies and programs, it is important that evaluations continue to be undertaken by someone independent of the program, preferably by external evaluators. Whether an evaluation can be undertaken internally will depend on an assessment of what is required, whether staff are equipped with the skills and expertise to undertake the work and the advantages and disadvantages of undertaking the research internally. Performance monitoring and process evaluations may be better suited to being conducted internally, while rigorous and systematic outcome evaluations are more likely to be better suited to external evaluation.

Finally, it is important that evaluations of drug court programs be undertaken by experienced evaluators with the relevant skills and expertise to undertake rigorous and systematic evaluation. The necessary skills and expertise required to undertake the evaluation will vary depending on whether it is a process or outcome evaluation, the type of program being evaluated, and the type and format of the data that will be analysed. The skills required to undertake the evaluation should be made explicit through requests for quotations, proposals and tenders.

Evaluating process

Two types of evaluation are necessary for a drug court program—process and outcome evaluation. A process evaluation aims to improve understanding of the activities that are delivered as part of a program and assess whether they have been implemented as planned. An outcome evaluation is more concerned with the overall effectiveness of the program. The range of questions that can be addressed by both types of evaluation is presented in Table xx.

Table 19: Questions that can be addressed as part of process and outcome evaluations

Process evaluation questions	Outcome evaluation questions
What are the main components or activities delivered as part of a program?	To what extent has the program achieved its stated objectives?
Is the program currently operating or has it been implemented as it was originally designed (ie program fidelity)?	Did the program make a difference in terms of the problem it sought to address?
Are the intended recipients of a program accessing the services being provided, do they remain in contact with the program and does the program meet the needs of participants?	What outcomes have been delivered as a result of having implemented the program?
Is the program consistent with best practice in terms of its design and implementation?	What impact has the program had in the short and medium term on participants' knowledge, attitudes, skills or behaviour? Are these outcomes sustained over time?
What factors impact positively or negatively upon the implementation or operation of the program?	What longer-term impact has the program had on reoffending among participating offenders?
How appropriate are the governance arrangements, operating guidelines and, where applicable, legislative framework in supporting the operation of a program?	Were there any unintended consequences or outcomes from the program?
What is the cost associated with the operation of the program? Is the program adequately resourced?	Which program activities or components contributed to the outcomes that have been observed?
How efficient has the program been in delivering key activities?	What external factors impacted positively or negatively on the effectiveness of the program and the outcomes that were delivered?
	What are the financial benefits of a program relative to the costs associated with its operation (return on investment)?

What improvements could be made to the design, implementation and management of the program?	What changes could be made to the program to improve its overall effectiveness?
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Source: Morgan & Homel 2013

The evaluation of drug court programs should incorporate both process and outcome evaluation (Weatherburn 2009). However, the staging and timing of a process and outcome evaluation will vary depending on the circumstances of each program. In some cases, such as programs that are new (or have been modified) and are in the initial stages of implementation, it may be beneficial to conduct a process evaluation (providing valuable information to improve program delivery) followed by an outcome evaluation. In other cases, a process and outcome evaluation can be undertaken simultaneously (and can overlap both in terms of evaluation questions and methods).

A process evaluation can determine whether an intervention has implementation fidelity. This refers to the extent to which an intervention was implemented in accordance with its original design, whether the required dosage of the intervention has been delivered, the overall quality of intervention delivery, and the extent to which participants are engaged and involved in the program (Mihalic et al. 2004). Assessing implementation fidelity is important because this can help to explain why certain outcomes are or are not observed. It can also identify valuable lessons for implementing similar interventions in the future, helping to avoid implementation failure.

Related to this point, a process evaluation can also examine whether a program is consistent with international best practice. This is particularly important when there is evidence from overseas models that a particular program has been effective elsewhere—as is the case with many of the prison programs examined as part of this project. While adaptation to suit local circumstances is necessary and inevitable, certain program characteristics have been found to be key to the success of interventions and therefore must be maintained.

For each of the programs examined as part of this project, it is recommended that a process evaluation be conducted as early as possible—ideally within 12 months of implementation. The timing of this evaluation should allow sufficient time to elapse to detect issues related to implementation, while also being early enough to allow for any issues to be addressed prior to an outcome evaluation being conducted.

Commitment to rigour and scientific method

It is important that evaluations of the drug court program adopt research designs that are consistent with internationally accepted standards for drawing meaningful conclusions about program effects. In order to reliably assess the impact of prison programs on outcomes such as reduced reoffending, evaluations must aim for a high level of internal validity. That is, there must be some degree of confidence that any observed changes or differences were the result of the intervention being evaluated and not some other confounding factor.

There are a variety of different approaches to measuring the impact of programs designed to prevent and reduce offending. Selecting an appropriate evaluation design and research method requires consideration of the characteristics of a program, the purpose of the evaluation, the available options, and the views of key stakeholders (English, Cummings & Stratton, 2002; National Research Council 2005). Specifically, an evaluation design and methods may be influenced by:

- program characteristics, including the targeted problem (that may or may not be easily measured) or cohort (universal, selected, sample);
- program status and/or circumstances, including whether it has been implemented or in operation for some time
- the specific evaluation questions that need to be addressed;

- practical constraints on the implementation of the research, including the available budget and timeframe;
- the degree to which assumptions and data requirements can be met, including access to relevant data on program outcomes and the ability to maintain the integrity of the research design;
- the needs of the target audience and key stakeholders for an evaluation; and
- ethical issues associated with particular research methods (National Research Council 2005).

However, experimental (especially quasi-experimental) and observational methods are the most common approaches used in criminal justice research (MacKenzie 2006). The Scientific Methods Scale (SMS) was therefore developed to assess the quality of outcome evaluations in crime prevention and criminal justice research (Table 4). The SMS forms the basis of systematic reviews and meta-analyses undertaken by the Campbell Collaboration (Farrington et al. 2006; Sherman et al. 2006), while a slightly modified form is used by the WSIPP (Lee et al. 2012), and has been applied to a variety of settings and strategies designed to prevent and reduce crime. It is primarily focused on ensuring the highest possible level of internal validity and drawing valid conclusions regarding the causal relationship between interventions and the outcomes observed. The scale ranges from a correlation between a program and a measure of the outcome (level one) through to randomised control studies (level five), which are widely (but not universally) regarded as the gold standard for evaluation research (Farrington et al. 2006).

Table 20: Scientific Methods Scale

Level	Criteria
1	Correlation between a prevention program and measure of crime at one point in time
2	Measures of crime before and after the program, with no comparable control condition
3	Measures of crime before and after the program in experimental and comparable control condition
4	Measures of crime before and after the program in multiple units with and without the program, controlling for other variables that influence crime, or using comparison units that evidence only minor differences
5	Random assignment of program and control conditions to units

Source: Farrington et al. 2006: 16-17

In practice, randomised control trials have proven difficult to achieve, particularly within Australian criminal justice research. A research design that achieves level three on the SMS, with measures of the outcome (usually a reduction in crime) pre and post intervention and an appropriate comparison group against which to compare results (a quasi-experimental design) is therefore considered the minimum design for drawing valid conclusions about the effectiveness of a strategy (Farrington et al. 2006; MacKenzie 2006; Sherman et al. 1998).

This should therefore act as the minimum standard for evaluations conducted on drug court programs. There may be occasions where a higher standard is possible and, for this reason, random assignment should not be ruled out as an option. Where the capacity of programs (in terms of the total number of participants) is lower than the number of eligible prisoners (intentionally or otherwise), random assignment to the program and a control group may be plausible.

However, in many circumstances random assignment will not be possible. There are some circumstances where random assignment would not be ethical, although research has shown that the ethical concerns often raised with randomised control trials are sometimes exaggerated. Experiments are also better suited to programs that have lower public visibility, involve subjects who are less serious threats to community safety and which could only have been delivered in selected locations (rather than entire populations)—criteria that may not currently apply to the drug court program (Weisburd & Hinkle 2012).

Where this is the case Queensland should employ a quasi-experimental design. Quasi-experimental designs are frequently used in place of random assignment to assess the performance of criminal justice programs, and involve selecting a matched comparison group comprising (in this case) prisoners who share similar characteristics to the intervention group and meet the eligibility criteria, but who did not participate in the program. Statistical techniques such as propensity score matching can be used to match prisoners in the intervention group with prisoners in a comparison group, typically on the basis of variables that are known to influence reoffending (or the outcome of interest). These can include (among other things):

- sex;
- age;
- Indigenous status;
- the number of proven offences and most serious proven offence for the reference episode;
- the number of prior proven offences and most serious prior proven offence; and
- prior imprisonment (Payne 2007).

Access to program and outcome data

Both process and outcome evaluation depend on reliable information on program participation being available, however, evaluations typically succumb to information and data deficits, making it difficult to assess outcomes. Among the challenges typically experienced by evaluators are:

- variable and sometimes limited information on program participation, more so for some program areas and for some program or non-program cohorts (eg those participants who don't complete a program);
- problems accessing data relating to key outcome measures;
- limited capability for linking data between government agencies relating to outcomes other than reoffending (eg health data, housing data, child protection data);
- limited access to recidivism data besides information on return to prison and return to community corrections, and limited capability for linking data between Corrections, Police and Court Services; and
- limited access to data on the operating expenditure for prison programs treatment programs and/or inadequate data on intervention effects for evaluators to be able to conduct meaningful cost-benefit analysis.

Cost-efficiency and cost-benefit analysis

Economic analysis must become a key feature of any drug court evaluation in Queensland:

...while determining whether a program reduces crime remains the necessary first condition for rational public policy making, an economic analysis constitutes the necessary additional condition for identifying viable and fiscally prudent options.
(Drake, Aos & Miller 2009: 194)

There is good evidence of the value of including economic analysis in evaluation and the assessment of program performance. For example, the WSIPP model involves a three-step approach to evaluating and costing policy options, including with adult corrections. This involves the systematic assessment of evidence on 'what works', cost-benefit analysis and ranking of public policy options and risk assessment of their conclusions (Lee et al. 2012). On the basis of this evidence, and in response to rapidly increasing prison populations, the legislature responded with a portfolio of evidence-based programs. As a direct result of this scientific research, in 2007 the state legislature redirected funds

allocated to future prison construction to evidence-based crime prevention and intervention programs on the basis of falling crime rates and a projected saving of \$2 billion (Welsh et al. 2013).

Several forms of economic analysis are possible when evaluating criminal justice programs:

- Financial analysis: Estimating the impact of a program on an agency's budget, including the efficiency of services delivered (ratio of outputs to inputs).
- Cost-savings analysis: A comparison between the costs and benefits realised by a program's funding body.
- Cost-effectiveness analysis: Cost incurred to produce each unit of benefit.
- Cost-benefit analysis: Compares all of the benefits associated with a program (in dollar terms) with program costs to develop a cost-benefit ratio (Queensland Department of Premier and Cabinet 2006)

Rigorous and systematic evaluations of drug courts should include a cost-efficiency, cost effectiveness and cost-benefit analysis. This will require robust estimates of program costs and the measurement of intervention effects in a way that is amenable to quantifying in financial terms. It will also require valid estimates of the financial benefits associated with improved prisoner outcomes.

Summary and recommendations

There is compelling evidence to suggest that drug court outcomes are more favourable for courts that are independently evaluated and open to modification in response to evaluation findings. It is critical therefore that there is an early commitment to independent evaluation and that the information needed for evaluation be collected as a standard activity of the drug court's operations.

In considering the reinstatement of drug courts in Queensland, it is recommended that:

- A legislative commitment to the evaluation of the program, which should be undertaken as an independent process and outcome evaluation.
- The development of an evaluation plan and protocol before the commencement of the drug court. The protocol should outline an interagency agreement governing the collection, collation, sharing and storage of information and data.
- The creation of an evaluation minimum dataset in consultation with independent research experts and agency representatives. Where possible, data linkage opportunities should be identified and agreed between agencies at the outset of the drug court program.
- Where possible, control and/or comparison groups should be identified at the commencement of the drug court program. Randomisation processes should be implemented where it is expected that the demand for drug court services will exceed capacity.
- Drug court evaluations should include cost-efficiency and cost-benefit analysis, conducted by independent evaluators. To facilitate this process, unit level costing data should be identified as a core component of the evaluation minimum dataset.
- The Drug Court Manager should produce regular statistical and performance monitoring reports on the operation and outcomes of the drug court. Though these are not formal

evaluations, they should be used to inform incremental changes to the operation of the court, where indicated and agreed.

- Performance benchmarks should be developed and reported against for the purposes of ongoing performance monitoring. Benchmarks should be developed and verified through independent analysis of interstate and overseas drug court programs, as well as pre-existing drug court data in Queensland.
- Subject to application and approval, the drug court program should encourage external researchers to undertake research with drug-court participants. Queensland should identify areas and ways in which it can contribute to the international best practice in drug court operation.

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Appendix A: NSW Drug Court Drug Testing Policy

DRUG COURT OF NEW SOUTH WALES

<i>Policy 9</i>	Drug and Alcohol use by Participants
<i>Last Reviewed</i>	August 2013

1. PURPOSES OF POLICY

- 1.1 To ensure early detection of participant drug use and a swift response by the Drug Court to such use. To promote program compliance and reduce the health risk to which each participant is exposed. To reduce the risk to the community of participant criminal conduct.
- 1.2 To ensure accuracy and consistency in testing for participant drug use.

2. DEFINITIONS

<i>Act</i>	means the Drug Court Act 1998.
<i>Case manager</i>	means the Community Corrections Officer assigned to a participant.
<i>Drug Court program</i>	means the conditions that a person has accepted, having been dealt with under section 7A, 7B and 7C of the Act.
<i>Participant</i>	means a person dealt with under sections 7A, 7B and 7C of the Act
<i>Testing Nurse</i>	means a nurse employed by the Court or by a treatment provider to conduct and supervise testing for drug or alcohol use.
<i>Treatment provider</i>	means a participant's principal treatment provider.

3. POLICY

3.1 Undertaking about any drug use

- 3.1.1 At the commencement of his or her Drug Court program, each participant is to undertake to the Court that he or she:
 - will not use or possess any prohibited drug,
 - will not use or possess any synthetic intoxicating drug,
 - will not drink alcohol at all in Phase One of the Drug Court Program,
 - will not use alcohol or any other legal drug in a manner which may interfere with his or her ability to fully participate in a Drug Court program,
 - will provide his or her urine, breath, sweat or saliva for analysis as and when directed to do so,
 - will not use any prescribed medication unless it is prescribed for him or her by a doctor,

- will admit to using any prescribed or non-prescribed medication at the next drug test.
- will bring to the drug test location the packet/bottle and a copy of the prescription.
- will seek to avoid using or being prescribed any pain relief medication which contains codeine.
- will obtain a letter from any doctor or dentist who has prescribed codeine-based medication that no other pain relief medication would be appropriate.
- will admit to the use of pain relief medication at the time of drug testing even if this medication has NOT been prescribed. In all cases, the taking of medication must be discussed with a participant's treatment provider and when requested a participant will provide the treatment provider with the name and contact of the prescribing Doctor. Treatment providers will discuss, where necessary, the use of medication with the Case Manager.
- will, at the first opportunity, report any breaches of his or her program to the Drug Court, the case manager and the treatment provider.

3.1.2 The Drug Court may require a participant not to use a legal drug, including a drug prescribed for the participant by a doctor.

3.1.3 The Court regards a blood alcohol concentration of in excess of 0.05 as indicating the participant is consuming alcohol in a manner that may interfere with his or her ability to fully participate in a Drug Court program.

3.1.4 The Drug Court may also require a participant to undertake not to use any alcohol beyond Phase One of the program.

3.1.5 Prior to commencing Phase Two of the program, the participant must discuss with his or her counsellor responsible alcohol consumption, ie, "controlled drinking".

3.2 The manner and frequency of testing

3.2.1 The Drug Court may use any reliable means to detect drug use, including urine, breath, sweat, saliva or hair testing that is appropriate in the circumstances of the participant.

3.2.2 If directed by the Drug Court or the Registrar, the participant may be required to undertake an instant drug test. The instant test may be referred to the laboratory for confirmation.

3.2.3 A participant may be tested for any prohibited drug, synthetic intoxicating drug and/or alcohol use on a random and/or a regular basis.

3.2.4 Generally, participants are to be tested:

- During Phase One - a minimum of three times per week, on a pre-programmed basis, which minimises the gap between tests.
- During Phases Two and Phase Three - a minimum of two times per week, on a programmed basis, which minimises the gaps between tests.
- During the final four weeks of Phase Three – three times per week as for Phase One, and this testing will include testing for traces of drugs.

- 3.2.5 The Court may vary the frequency and/ or nature of testing where appropriate, depending on the level of the participant's compliance with his or her program.
- 3.2.6 Testing for drug use is to be supervised to prevent the provision of a false sample. Where possible, supervision is to be by means of direct personal observation.
- 3.2.7 When a participant is unable to attend for a drug test, or the participant has attended and cannot provide a sample, the Registrar or the case manager can approve alternate arrangements, which may include a drug test being taken by the treatment provider, case manager or a medical practitioner, or attending the registry between 9am and 10am the next day.
- 3.2.8 Failure to attend for drug testing as required, approved, or directed is a breach of program.

3.3 Response to drug use

- 3.3.1 Drug use is a breach of program, and the Drug Court will respond in a therapeutic way to that drug use at the earliest opportunity (see paragraph 3.4 below).
- 3.3.2 Drug use, or failure to provide a sample for testing, is a breach of program, and will result in a sanction or sanctions being imposed.
- 3.3.3 A substantially increased sanction will be imposed for any drug use detected which has not been admitted to a treatment provider, case manager and to the Court at the earliest opportunity.
- 3.3.4 Providing a false sample, tampering with a sample, or attempting to manipulate the taking or administration of any form of drug testing is a very serious breach of program and may result in the termination of the participant's Drug Court program.
- 3.3.5 When a participant admits a drug use to a case manager or treatment provider, or fails to provide a sample for testing when required, the case manager and treatment provider are to liaise as soon as possible, and determine and apply the appropriate therapeutic response. The person to whom the admissions is made is to include all such admissions in the report to the Court, and the participant must be directed to attend court within 7 days of the admission. The Registrar is to be informed immediately of any direction given to attend court.
- 3.3.6 When a participant admits a drug use to a testing nurse, or fails to provide a sample for testing when required, the nurse is to inform the Registrar. The Registrar is to determine the appropriate therapeutic response after consulting the Court's records and if necessary the Clinical Nurse Consultant of the Drug Court team.
- 3.3.7 If a participant fails to attend for drug testing when required, the testing nurse is to notify the Registrar by email, facsimile or telephone. If appropriate the Registrar is to inform the Court.
- 3.3.8 If a participant is detected or suspected of:
- providing a false sample or attempting to do so, or
 - tampering with the testing mechanism or sample, or,
 - if a drug use is detected which has not been admitted at the earliest opportunity,

the person supervising the test is to notify the Registrar immediately of the circumstances of the incident, and the Registrar will direct the participant to attend court immediately, or the next sitting day.

- 3.3.9 If a participant misses two consecutive drug tests, or has used illicit drugs and is not due to return to Court for 7 days or more, then the participant is to be directed to attend court immediately, or the next sitting day. The case manager, the treatment provider or the Registrar, upon becoming aware of such circumstances, may make such a direction.

3.4 Therapeutic response to drug use

- 3.4.1 The following principles are to be applied:

- If the drug use indicates a participant who is in physical danger because of a relapse into drug use, immediate action is required.
- If the intoxication is significant immediate medical intervention should be the highest priority.
- If the drug use is indicative of a participant's ongoing struggle with addiction, then support in treatment is the most therapeutic approach.
- If the drug use is indicative of the failure of the present treatment plan, then the Court's intervention in treatment is warranted.
- If the drug use is indicative of someone accepting their level of drug use, or whose drug use could put the participant or the community at risk, the court's early intervention is warranted.

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Appendix B: Mental Health and Cognitive Impairment Screening Tools

Table 1: Screening tools for mental illness						
<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Kessler Psychological Distress Scale (K10)	Developed for the general population. Used by the ABS as part of regular health surveys, and in NSW prisoner health survey. Previously administered as part of the AIC DUMA program.	Psychological distress	The K10 provides a global measure of distress based on questions about anxiety and depressive symptoms that a person has experienced in the most recent 4 week period. There are 10 questions each of which has a 5 value response option.	Assessments undertaken which supports the validity of the K10 as a measure of psychological distress. Found to be strongly and consistently associated with diagnosable mental disorders in general population studies where they have been tested against a full diagnostic interview. Has not been validated against diagnostic instruments in offender populations. Some issues relating to discomfort of participants were reported by DUMA site managers. Can be difficult to determine whether distress related to mental illness or contact with criminal justice system.	Simple to administer and score, with short administration time. Can be conducted by a layperson. Can also be self-administered.	Readily available at no charge

Table 1: Screening tools for mental illness						
<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Mental Health Screening Form (MHSF-III)	Developed to identify mental health problems in individuals with a substance use disorder who are receiving treatment.	Mental illness among persons with substance use disorder	Semi-structured interview incorporating 18 items with Yes/No response options. Each question reflects a different diagnostic category.	<p>Found to be a promising mental health screen for jail settings, and has been recommended for widespread use.</p> <p>Correlated with self report trauma and mental health symptoms.</p> <p>Provides reasonable accuracy in identifying offenders with any mental disorder (72.1%), and identifying offenders with a severe mental disorder (74.5%).</p> <p>Performed better than the MINI-M in accurately identifying males and females with a mental disorder.</p> <p>Limited validity for some disorders, such as pathological gambling.</p>	<p>Can be self-administered or administered by layperson.</p> <p>Recommended that a qualified mental health professional review responses to determine need for further assessment.</p>	Readily available at no charge

Table 1: Screening tools for mental illness

<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Mini International Neuropsychiatric Interview-Modified (MINI-M)	Designed for use in a clinical setting. Based upon full MINI; a closed-ended question structure focused on 19 most common mental health disorders, divided into modules corresponding to each diagnostic category.	Mental illness among persons with substance use disorder	22 items with Yes/No response items. Divided into three major categories of mental illness; mood disorders, anxiety disorders and psychiatric disorders. Assesses current, recent and longer term disorder. Questions are based on gateway questions and threshold criteria found in the DDSM-IV, SCID and the MINI.	Demonstrated to have an acceptably high validation and reliability scores in a range of settings, including jails. Valid for both men and women, as well as for an ethnically diverse population. Provides reasonable accuracy in identifying offenders with any mental disorder (68.5%), and identifying offenders with a severe mental disorder (70.3%). Better at diagnosing some disorders than others.	Takes approximately 10-15 minutes to administer. Can be used by clinicians after a brief training session. Lay interviewers require more extensive training.	Copyrighted, but may be used in publicly owned settings for clinical and research use.

Table 1: Screening tools for mental illness

<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Referral Decision Scale (RDS)	Developed to be used in a correctional setting. Originally developed as a rapid screen for schizophrenia, bipolar disorder and major depression in jail populations. Used in the NSW inmate health survey.	Mental Illness	15 item tool comprising 3 subscales for schizophrenia, bipolar disorders and major depression Each five-item scale has a cut-off score which if met means a referral for further assessment. Derived from Diagnostic Interview Schedule.	Preliminary evidence of 'respectable' validity when compared to subsequent assessments. Significant number of false-positives in prisoner health surveys. Some difficulties reported in distinguishing between the 3 specific illnesses covered in the tool. Validity limited to those illnesses included as part of the RDS subscales, severely under-identifies mental illnesses such as anxiety disorders and PTSD and other mental illnesses not covered by the 3 subscales. Focus on lifetime occurrence rather than current symptoms may overestimate the current need for further mental health screening.	Designed for use by correctional staff.	Readily available at no charge

Table 1: Screening tools for mental illness						
<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Jail Screening Assessment Tool (JSAT)	Developed to be used in a correctional setting.	In addition to screening for mental disorders, also covers violence and victimisation, suicide risk and self-harm.	Comprehensive screening tool. Covers criminal history, social circumstances, substance abuse/treatment, and mental health status/treatment. Involves structured professional judgement, provides a standard decision-making approach to professional judgement.	Validation studies conducted by the developers reported very high validity in identifying those as having mental disorders or suicide risk for referral to a treatment program.	Approximately 10-20 minute interview. A structured semi-clinical judgement, with no scoring, the JSAT is more suited to being administered by mental health professionals. Requires training.	Readily available at no charge

Table 1: Screening tools for mental illness

<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Brief Jail Mental Health Screen (BJMHS)	Developed and tested by the US National Institute of Justice for use with males in a correctional setting.	Mental Illness (severe symptoms)	Eight key questions in a Yes/No format. Briefer version of the RDS with single composite scale. Focuses on current mental health disorders, previous hospitalisation and medication.	Results from a validity assessment (comparing the BJMHS with the SCID) showed a referral match on 73.5% of males, and 61.6% of females. High numbers of false negatives were found among females (34.7% of female non referrals). Recommended as a practical, efficient tool for screening males, and further testing has shown greater suitability for jail populations, rather than arrestees. Issues relating to accuracy of reporting of symptoms and focus on current disorder.	Screen takes two to three minutes to administer. Can be administered by case program coordinators. Step-by-step instructions for recording responses are printed on the backs of the interview forms. Simple scoring techniques.	Readily available at no charge

Table 1: Screening tools for mental illness

<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Correctional Mental Health Screen- Men and Women (CMHS-M and CMHS-W)	<p>Developed and tested by the US National Institute of Justice. Developed to attempt to correct shortcomings with RDS and BJMHS.</p> <p>Currently being administered by the AIC as part of the DUMA program.</p>	Mental Illness	<p>Separate questionnaires for men and women.</p> <p>The CMHS-M asks 12 questions in a Yes/No format; and the CMHS-W asks eight questions in a Yes/No format.</p> <p>Both cover questions on current and lifetime serious mental health disorders. Includes two unique questions for females and six unique questions for males.</p> <p>Distinguishes between urgent and routine referral.</p>	<p>Testing and validation confirms the CMHS accurately identifies individuals in correctional settings with mental illness. Validity assessment conducted and statistical analysis showed the CMHS-W was 75.0% accurate and the CMHS-M was 75.5% accurate in correctly classifying inmates as having a previously undetected mental illness.</p> <p>Validation tests demonstrated the CHMS strong predictive validity in detecting depression, anxiety, PTSD, some personality disorders and undetected mental illness.</p> <p>Notably the CMHS-W is the first mental health screen developed and validated specifically for women in a criminal justice setting.</p>	<p>Each screen takes around three to five minutes to complete.</p> <p>Can be administered by a layperson with minimal training.</p>	Readily available at no charge

Table 1: Screening tools for mental illness

<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Global Appraisal of Individual Needs Short Screener (GAIN-SS)	Designed as a shorter version of the full 1.5-2 hour GAIN assessment.	Behavioural health disorders	Assesses current, recent and lifetime disorder. Comprises four five-item sub-tests in Yes/Nf format addressing different disorders: internalising disorders, externalising disorders, substance use disorders, crime and violence problems	Good discriminant validity for each sub-test. Found to be consistent with the full GAIN assessment. Provides reasonable accuracy in identifying offenders with any mental disorder (72.6%), and performed better than the MHSF and MINI-M in identifying offenders with a severe mental disorder (76.7%). Performed better than the MINI-M and MSHF in accurately identifying males but worse than the MHSF for females with a mental disorder.	Five minute questionnaire. Designed for staff or self administration. May be administered by layperson. Optional Cognitive Impairment Scale (CIS) may be completed prior to GAIN-SS.	Readily available at no charge

Table 1: Screening tools for mental illness						
<i>Assessment name</i>	<i>Use of tool (including jurisdiction, program and whether used in justice context)</i>	<i>Focus of assessment</i>	<i>Brief description of key components of assessment tool</i>	<i>Use in evaluation or validity assessment</i>	<i>Implementation requirements (time, staffing, skills required etc)</i>	<i>Availability of assessment</i>
Psychiatric Assessment Schedule for Adults with Developmental Disabilities Checklist (PAS-ADD Checklist)	A screening instrument designed to help carers recognise likely mental health problems in people with intellectual disabilities. Has been used in research among defendants appearing before NSW Magistrates Court.	Mental illness among persons with intellectual disability	25 item questionnaire designed for use primarily by care staff and families to identify potential cases of mental illness. Produces three scores relating to affective or neurotic disorder, possible organic condition and psychotic disorder.	Rates of mental illness found to be consistent with previous studies of general populations of people with ID using over-inclusive screening instruments. Appears to be an easy-to-use and sensitive tool for identifying mental health cases in ID populations, but further investigation is required concerning the specificity of the instrument. No assessments of validity among offenders located.	Can be administered by a layperson with minimal training.	Copyrighted

