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The Queensland Drug Court: a recidivism study of the first 100 graduates

Jason Payne

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Director's introduction

In 1999, the Australian Institute of Criminology (AIC) released a report examining the emergence of drug courts in both the United States and the United Kingdom. It described, in detail, their development, implementation and evaluation, and foreshadowed what would soon become one of the most significant court innovations in the Australian criminal justice system. Of particular importance was the emphasis on program evaluation and its critical role in ensuring that the best, most appropriate drug court model was developed and delivered in Australia.

Almost 10 years later, drug courts have since been established in all but three Australian states and territories. In Queensland, the drug court model has been instituted as a permanent fixture of the criminal justice landscape, one which targets drug-dependent criminal offenders whose long history of criminal involvement is seemingly a result of their drug use. Such innovations are important because they provide for the identification of drug users who might not otherwise seek rehabilitation, and encourage them to engage in drug treatment services, even if for a brief period of time.

This report highlights aspects of the Queensland drug court's operation and describes the longitudinal recidivism outcomes of those who are successful and unsuccessful in their endeavours to become drug and crime free. The report emphasises the positive benefits experienced by drug court participants who embrace the opportunity for rehabilitation. Successful offenders consistently report a large decline in their criminal activity and lower rates of recidivism than those who were unsuccessful or those who were sent to prison – a benefit that is sustained into the medium term (two years). Unsuccessful offenders also experience large declines in offending, but these declines are generally no different from those exhibited by a comparative sample of drug-dependent prisoners – a finding which indicates that although the drug court did not necessarily improve their reoffending outcomes, it had no negative effect in worsening them.

This is the third in a series of evaluations by the AIC and represents a long-term collaboration between researchers at the AIC and policy-makers and practitioners of the Queensland Department of Justice and Attorney General. Throughout its life, this project has shown how research can influence policy and practice, but just as importantly how policy and practice can positively enhance the thinking and analysis of issues critical to the successful implementation of criminal justice interventions.

Toni Makkai
Director
Australian Institute of Criminology

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Acknowledgements

This report builds on earlier work by the Australian Institute of Criminology (AIC) in the evaluation of the Queensland drug court program. Since the commencement of the AIC's evaluation program in 2002, a large number of drug court employees, both past and present, have made a significant contribution to the development and interpretation of this research. In particular, the AIC would like to acknowledge the invaluable support and assistance provided by the Queensland Department of Justice and Attorney-General, the North and South East Queensland drug court teams, the magistrates, the Queensland Department of Corrective Services and the Queensland Department of Health. The author would also like to thank drug court managers Gregory Wiman and Peter Mulder, who have provided unfailing support in our endeavours to understand and analyse the drug court database.

Executive summary

This report is the third in a series of research papers by the Australian Institute of Criminology (AIC) examining the processes, procedures and outcomes of the Queensland drug court program. Commencing in 2000, the drug court first operated from three magistrate court locations in South East Queensland – Ipswich, Beenleigh and Southport. In 2002, two additional drug courts commenced in the north of the state – Cairns and Townsville. The Queensland drug court program offers eligible offenders an opportunity to participate in an Intensive Drug Rehabilitation Order (IDRO). An eligible offender is one that:

- is likely to be imprisoned (but for no longer than three years) for the offences for which they are currently appearing in court
- resides within the relevant drug court jurisdiction
- has not previously served a disqualifying term of imprisonment
- pleads guilty or intends to plead guilty to the referring offences
- has a drug problem and therefore wishes to participate in the drug court program.

An IDRO is a post-sentence court order that requires compulsory drug treatment (either residential or non-residential), regular attendance at court, participation in cognitive and behavioural programs, and compliance monitoring through urinalysis testing. The program is designed as a minimum nine-month intervention delivered over three phases. It targets drug-dependent criminal offenders at the 'hard end' of the criminal justice continuum; those with a long history of criminal offending and heavy drug use. Both attendance and compliance monitoring requirements decrease over the duration of the program in recognition of positive performance and continued compliance. Non-compliance is sanctioned by the drug court magistrate, while compliance is rewarded. Continued non-compliance can result in termination. Terminated participants are returned to the normal criminal justice process, which typically requires some degree of imprisonment.

In the six years since its commencement on 2 June 2000:

- 1,361 offenders have been referred to the program (998 in South East Queensland and 363 in North Queensland)
- 758 offenders have been accepted into the program
- 183 offenders have successfully completed the program and graduated, while 402 have been terminated
- more than half of all participants have absconded at least once while in the drug court program. The average number of days it took for a participant in phase 1 to abscond was 28, and the average time spent at large was 20 days
- a total of 23,536 court appearances have been conducted. The majority were for the standard IDRO court review, while a smaller proportion (n=2,934) was listed as special mention appearances

- a total of 45,365 urinalysis tests have been completed, nine percent of which were positive. Cannabis was the drug most frequently identified during the urinalysis tests, followed by benzodiazepines
- the most frequently used sanction for non-compliance was imprisonment, followed by community service. Rewards were awarded as often as sanctions in phase 1, but more often in phases 2 and 3.

Of the 758 offenders issued with an IDRO, the majority were male (86%), married or living in a de facto relationship (82%), non-Indigenous (90%) and aged 29 years on average. They reported their health as generally good or very good. Nearly half were reported as having hepatitis C, while seven percent reported having had suicidal thoughts and 13 percent reported having previously engaged in self-harm. In terms of drug use, cannabis and amphetamines were the two drug types most frequently cited as having been used in the six months before referral, although more than half reported also having used opiates during that time. Poly-drug use was common among drug court participants, although they were not always assessed as dependent on each of the drug types they reported using. Almost all offenders accepted into the drug court program were facing one or more property charges (93%), while half (51%) were facing drug charges. In all, offenders were facing an average of around eight charges at the time of their referral.

In terms of drug court outcomes, this evaluation examined the recidivism of the first 100 graduates of the program. A minimum of two years of post-graduation criminal justice data were available for each graduate, making this evaluation the longest follow-up of Australian drug court gradates to date. In the analysis, recidivism was defined as daily episodes of reconviction and was examined before, during and after drug court participation. Recidivism rates were compared to two other groups of offenders: a group of 100 terminates of the program and a sample of 107 prisoners.

Offending while in the program

Overall, 70 percent of graduates committed a new offence while participating in the drug court program. The bulk of these offences were breach-related offences and most likely a result of not complying with one or more aspects of their drug court order. Forty-three percent of these graduates had committed at least one new property offence, 15 percent a violent offence and 31 percent a drug offence while in the program. These prevalence rates were lower than for terminates, of whom 92 percent had reoffended while in the program. Survival analysis illustrated an expected finding – that more terminates reoffend, and reoffend sooner, than those who eventually graduate from the program.

Using comparative data from the period before drug court entry, it was possible to examine the frequency of graduates' and terminates' offending compared to the 12 months prior to their drug court order. The analysis illustrated that despite the majority of both groups reoffending at least once, the overall rate of offending was significantly lower during their

participation in the drug court than in the 12 months prior. For graduates, offending declined by 86 percent from an average of 2.9 to 0.4 offences every six months. These reductions were even higher when measured independently among the property and drug offence categories (down 94% and 89%, respectively).

Although those who terminate offend more frequently than those who graduate, their offending is also significantly reduced while in the drug court program – down from 3.6 to 2.1 offences every six months. This is equivalent to a 42 percent reduction in offending. Across the offence types, the relative reductions were 54 percent in property offending and 72 percent in drug offending.

Offending after leaving the program

After leaving the drug court program:

- 59 percent of those who graduated had been reconvicted of a new offence within two years. The first post-graduation offence occurred after an average of 379 days
- 77 percent of terminates had been reconvicted within two years of their release from prison – the average time to first offence was 139 days
- graduates committed an average of 0.61 offences every six months after their graduation, down by 80 percent when compared to the 12 months prior to their entry into the drug court program
- terminates committed an average of 1.38 offences every six months after being released from prison – 63 percent lower than their rate of offending in the 12 months prior to drug court participation.

Compared to the prisoner comparison group, the graduates' rate of offending after their drug court experience was not only significantly lower, but represented a greater percentage decline when compared to their offending in the 12 months prior to their drug court experience (or imprisonment in the case of the comparison group). There were no real differences between terminates and the prisoner comparison group in both their pre and post-drug court/imprisonment offending rates.

Overall, these recidivism findings confirm earlier drug court work that those who graduate from the program have significantly improved criminal justice outcomes when compared to those who terminate and/or those who were otherwise imprisoned. This report, having the capacity to examine no less than two years of recidivism data, finds that this effect is seemingly sustained into the medium to long term. For terminates, the fact that their recidivism was not significantly different from the prisoner comparison group confirmed that the drug court, in this case, did not have any obvious effect in further worsening the criminal justice outcomes of those who fail on the program.

Introduction

Recent media attention given to a suspected increase in the use and abuse of crystalline methamphetamine, or 'ice', has once again focused our attention to drug users, particularly those who are dependent users, and their role in crime. Of course, this is not without good reason, for there has been for some time now a well-established evidence base that points to a high correlation between drug use and criminal activity. Criminal offenders are consistently shown to be more likely than the general population to be using drugs (Makkai & Payne 2003; Mouzos et al. 2007), and drug users frequently self-report engaging in criminal activity (Makkai & Payne 2003).

Since 1999, drug courts have developed across Australia as part of an integrated response to drug-related crime (Makkai 1998; Makkai 2002; Payne 2005b). In many parts of the country, including Queensland, these courts have become permanent fixtures of the Australian criminal justice landscape. They aim to provide innovative and alternative sentencing and treatment options that target root causes of offending, in this case drug use, rather than simply sentencing offenders. Their establishment occurred at a time of growing community and political concern that the court system was failing to have any real or tangible effect in reducing crime rates (Jefferies 2002).

In all jurisdictions where they currently operate, drug courts sit at the 'hard end' of the criminal justice continuum, offering support and treatment for serious, usually repeat, offenders whose criminal behaviour is the direct result of long-term drug dependency. A recent report released by the AIC (Wundersitz 2007) provides a comprehensive review of drug diversionary options in the Australian criminal justice system. It suggests that while each of these programs operates somewhat differently across Australia, there are a number of underlying similarities that clearly demarcate them from other court-based diversionary programs. At least in theory, all are designed to:

- target serious 'high end' offenders with significant drug-dependency issues that are linked to their offending
- respond to individuals who are facing a likely term of imprisonment
- engage the offenders in intensive treatment, as well as provide access to additional support services – such as assistance in obtaining accommodation – if required
- offer programs that run for at least 12 months or longer (the one exception being Western Australia's drug court regime, which is only six months long)
- provide intensive judicial supervision, with defendants required to appear in court for regular reviews (often weekly in the first stages of the program) to monitor progress
- have a team of specialists appointed to assist the court, including clinicians and case managers whose responsibilities range from initial assessment, development of individualised treatment programs, brokering access to external treatment agencies, monitoring client progress and regular reporting back to the court

- develop working relationships among the judicial officer, the prosecution and the defence lawyers, which requires them to exchange their normal adversarial roles for a more collaborative approach, where the rehabilitation of the client is considered paramount
- have in place a system of regular urinalysis testing for drug use, the results of which are routinely fed back to the presiding judicial officer and may provide grounds for termination from the program.

However, in addition to these similarities, there are also some key points of difference. For example:

- some drug courts, such as those in Queensland and New South Wales, operate as post-sentencing programs, while others are situated at the pre-sentence level, with defendants placed on bail in order to participate
- some, such as New South Wales, Victoria and Queensland, have legislative backing, while others do not. South Australia's drug court, for example, relies on the fact that its *Bail Act* allows magistrates to place defendants on extended periods of remand (known as Griffith remands), which ensures sufficient time for program completion
- some (again, notably Queensland and New South Wales) require defendants to be drug free before they can successfully graduate from the program, while in other states (such as South Australia) defendants are considered to have completed the program if they participate in treatment for 12 months, even if they are still using drugs at the end of that period (Wundersitz 2007).

All drug court programs have been subject to some form of evaluation. Of these, analysis has focused primarily on determining their effectiveness in reducing drug use, improving health and wellbeing, and reducing criminal offending (Payne 2005b; Wundersitz 2007). This includes earlier evaluations conducted by the AIC in the Queensland drug court program (see Makkai & Veraar 2003; Payne 2005a). Despite differences in the structure and implementation of the programs, the evaluation results have been relatively consistent across the jurisdictions. In terms of reducing drug use, there have been significant reductions in the use and abuse of illicit substances, at least in the short term. In New South Wales, the evaluation illustrated, using an interviewer-administered survey, the amount of money spent by drug court participants to purchase illegal drugs dropped from a pre-participation average of $1,000 to $175 per week after four months in the program. This, coupled with a decline in the number of positive drug tests, was evidence, according to the authors, of a positive impact on drug use (Lind et al. 2002).

In Victoria, participant responses to the Opiate Treatment Index health scale at both the time of commencement and after six months found that self-reported drug use decreased over time, with a statistically significant reduction in heroin use as well as decreases in alcohol and tranquillizer consumption. In contrast, the use of other opiates and amphetamines remained

stable over time while cannabis use doubled from approximately twice per day at the time of commencement to four times daily after six months (Alberti et al. 2004).

In both North and South East Queensland urinalysis results demonstrated time-graded reductions in drug use (Makkai & Veraar 2003; Payne 2005a). The results suggest that the further a participant progressed through the drug court, the fewer positive drug tests they submitted. This in turn appeared linked to significant improvements in these participants' health and wellbeing. In North Queensland, for example, participants are asked to complete a general health survey at the time of entry to, and graduation from, the drug court program. Otherwise known as the SF36 Short Form Health Survey, the instrument can be collapsed into seven different health and wellbeing indicators, ranging from general health perceptions to social and physical functioning indices. Although participants recorded below-average ratings across all seven general health items, at the time of graduation these indices had improved significantly. In particular, drug court graduates reported significantly higher values in their physical ratings, suggesting that they no longer saw their physical health as an impediment to their capacity to undertake physical and social activities, such as employment.

In addition to the SF36, the evaluation of the Victorian drug court program examined a range of other factors, such as improvements in employment and living situation. Full-time employment doubled among drug court participants, from 11 to 25 percent, within six months. Overall unemployment (taking into account both full and part-time employment) dropped from 86 to 54 percent after six months. Living arrangements also improved. The majority of drug court clients lived in undesirable situations (such as with friends or without a fixed address) at the time of commencement, but after six months many had moved into more stable accommodation, such as supported community or self-funded housing (Alberti et al. 2004).

Reducing the extent of drug-related offending is, in addition to reducing drug use and dependency, a key goal for drug court programs (Payne 2005a; Wundersitz 2007). The extent to which drug court participants are re-arrested and reconvicted has, therefore, been used as a key outcome measure in the respective evaluations. The results of these evaluations are, however, mixed. In New South Wales, for example, comparisons between the drug court treatment group and a randomised control group show few overall differences in terms of the time to, and frequency of, reoffending. Drug offending was one of the only significant differences between the drug court group and the control group. Drug court clients committed significantly fewer drug offences (Lind et al. 2002). These results were not dissimilar to those found in South East Queensland (Makkai & Veraar 2003), where as a group, the entire sample of drug court participants was not generally different from a matched prisoner comparison group in terms of their recidivism. In Victoria, significant reductions were illustrated in the levels of property offending among drug court participants, but not levels of drug offending (Alberti et al. 2004).

A complicating factor in drug court evaluations, and in particular the assessment of reoffending for such programs, is that drug court samples include two discrete sub-samples

– those who succeed in the program (and graduate) and those who do not (and terminate). At the program level, and when both samples are combined, the results, as illustrated above, tend to suggest that drug court programs have little effect on overall offending outcomes. This is commonly referred to as the 'termination effect' (see Lind et al. 2002; Makkai & Veraar 2003; Payne 2005a) – the consistent finding that those who fail to successfully complete the drug court program show little sign of improvement in their overall recidivism. This effect ameliorates the otherwise significant and positive effect of the program on those who are successful and graduate. Both the NSW and Queensland evaluations demonstrate that successful completion of the drug court program was significantly linked to reductions in the short-term prevalence and frequency of reoffending. But since graduates represent only a fraction (around 20 to 30%) of all people placed into the drug court program, this positive result is often hidden within the broader context of overall program recidivism rates, which appear unchanged (Lind et al. 2002; Makkai & Veraar 2003; Payne 2005a).

Overall, drug court evaluations demonstrate that intensive drug rehabilitation, delivered within a criminal justice framework, can deliver positive results in the short term (while in the program). The programs not only serve to reduce drug use, improve health, and improve social and physical functioning, they also have a significant effect in reducing the criminal activity of those who respond positively to, and comply with, their treatment. For those who fail to comply because they continue to use drugs, or continue to offend or abscond, little if any, reduction in criminality is observed.

Of the evaluations conducted in Australia to date, many different and complex limitations apply. The most obvious are the limits in the extent to which criminal activity was observed as well as the number of offenders for whom the analysis was conducted. In South East Queensland for example, only 44 offenders had graduated from the program at the time of its evaluation and these offenders had on average been out of the program for less than one year. The short length of the post-program follow-up time meant that its conclusions were restricted to a very limited time period. It was difficult, therefore, to determine whether the positive program effect demonstrated for graduates was applicable to a larger cohort of graduates and whether it would be sustained.

This report is a continuation of the AIC's commitment to evaluating the Queensland drug court program. It is the third in a series of evaluations, and builds on previous reports by following a larger sample of graduates for a longer period of time. The report is divided into three sections:

- an examination of the drug court referral process
- an examination of the core components of the drug court program as undertaken by offenders who are successfully granted an IDRO
- an examination of the recidivism of the first 100 graduates, compared to a sample of 100 terminates and 107 prisoners who did not partake in the drug court program.

1 The Queensland drug court program, 2000–06

Establishment and operation

The Queensland drug court program first commenced on 13 June 2000, enabled under the *Drug Rehabilitation (Court Diversion) Act 2000*. It was first established as a pilot program in three south-eastern magistrates courts – Beenleigh, Ipswich and Southport – and operated initially for two-and-a-half years. In December 2002, the South East Queensland pilot program temporarily ceased operation pending the outcomes of a number of reports and evaluations (Costanzo 2003; Makkai & Veraar 2003). Subsequently, in September 2003 the three South East Queensland drug courts re-commenced their operation as extended programs.

In the months leading up to the temporary cessation of the South East Queensland pilot program, the Queensland Government worked towards the establishment of two additional pilot drug court programs in the north of the state. On 7 August 2002, the Drug Rehabilitation (North Queensland Court Diversion Initiative) Amendment Bill 2002 was introduced to formalise the operation of drug court pilot programs in both Cairns and Townsville, which commenced on 1 November 2002. In 2005, the two North Queensland pilot programs were the subject of an evaluation (Payne 2005b), the outcomes of which led to their permanent establishment in the north.

In the six years to 2 June 2006, 1,361 offenders have been referred to the Queensland drug court program (998 in South East Queensland and 363 in North Queensland). A referral occurs when a magistrate, presiding in the normal criminal jurisdiction of each of the five courts, identifies an offender as seemingly suitable for diversion to the drug court program after considering whether the offender is likely to meet the legislative eligibility requirements as specified by the Act. This includes whether the offender:

- is likely to be imprisoned (but for no longer than three years) for the offences for which they are currently appearing in court
- resides within the relevant drug court jurisdiction
- has not previously served a disqualifying term of imprisonment
- pleads guilty or intends to plead guilty to the referring offences
- has a drug problem and therefore wishes to participate in the drug court program.

The actual rate of referral to the drug court program has fluctuated over the six years of its operation (see Figure 1.1). The highest number of referrals in any single month was 38, which occurred in the South East in August 2000. The lowest number of referrals in any one month was zero, which again occurred in South East Queensland, first in August 2001 and then from January to September 2003, after referrals to the program were suspended pending evaluation. The drop to zero in August 2001 resulted from the imposition of a participation cap, which limited the number of offenders who could actively participate in the program at any one time (see Makkai & Veraar 2003). Since recommencing referrals

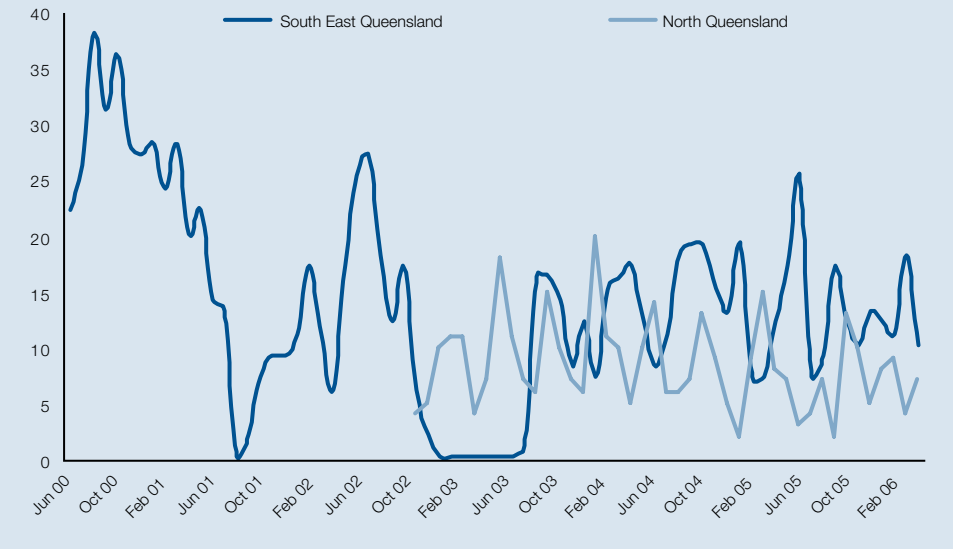
in September 2003, the South East Queensland program has maintained a relatively steady rate of referral, averaged at 13 per month. By court location, the average monthly referral rates are:

- Beenleigh – five referrals
- Ipswich – two referrals
- Southport – six referrals.

Referrals to the North Queensland drug court program commenced on 18 November 2002. Since this time, the program has maintained a steady rate of about nine referrals each month. By court location, the average monthly referral rates are:

- Cairns – four referrals
- Townsville – five referrals.

Figure 1.1: Total monthly referrals by region, June 2000 – June 2006 (number)



Source: AIC, Queensland drug court database [computer file]; n=1,361

Eligibility determinations are the result of a formal decision by the drug court magistrate, subject to the submissions of the drug court team, that the offender does not meet one or more of the eligibility criteria set out in the Act. In general, to be eligible an offender must:

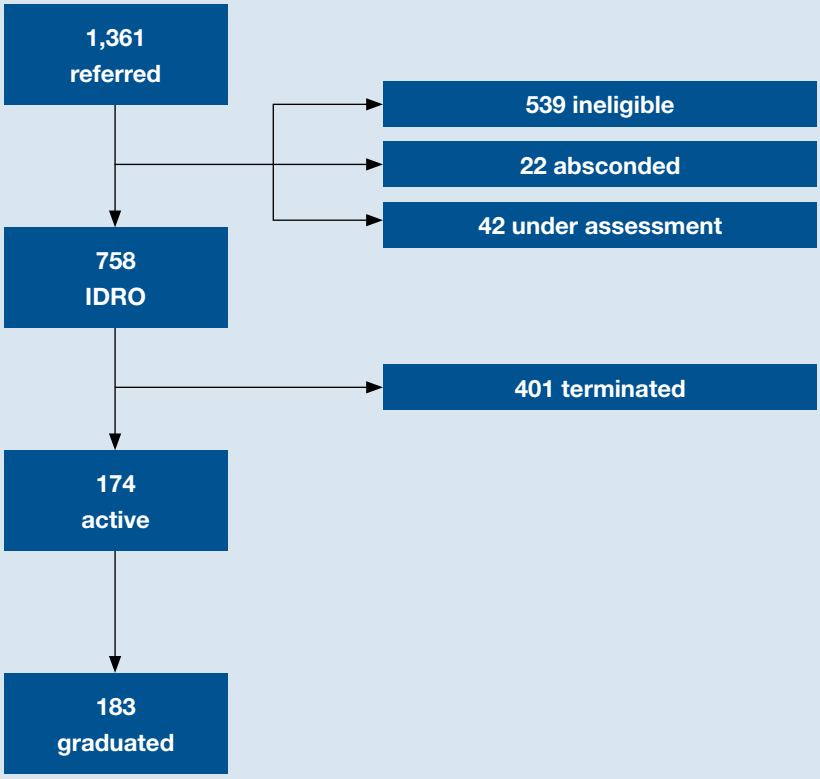
- be charged with a relevant offence
- plead guilty to the referring charges
- not be charged with, or having pending, a disqualifying offence
- not be dealt with as a child under the *Juvenile Justice Act 1992*
- be assessed as drug dependent
- be likely, if convicted, to be sentenced to a term of imprisonment
- reside within a postcode area prescribed by the Act for each court
- not have served a disqualifying term of imprisonment
- be willing to undergo assessment and rehabilitation, and to appear before the drug court program magistrate to be dealt with for their offence(s).

Of the 1,361 offenders referred to the program, 758 (56%) met the criteria of the drug court program and were admitted to an IDRO (see Figure 1.2). An IDRO is the formal court order, coupled with a suspended prison sentence, that is handed down by the drug court magistrate in lieu of a custodial sentence. It specifies the participation requirements and outlines what is required of the offender in order to complete the drug court program.

The remaining 603 offenders (44%) had not been granted an IDRO. This was because they were deemed ineligible according to the legislative requirements of the court (40%), had absconded and had not yet been re-arrested (1%), or they were yet to be assessed (3%).

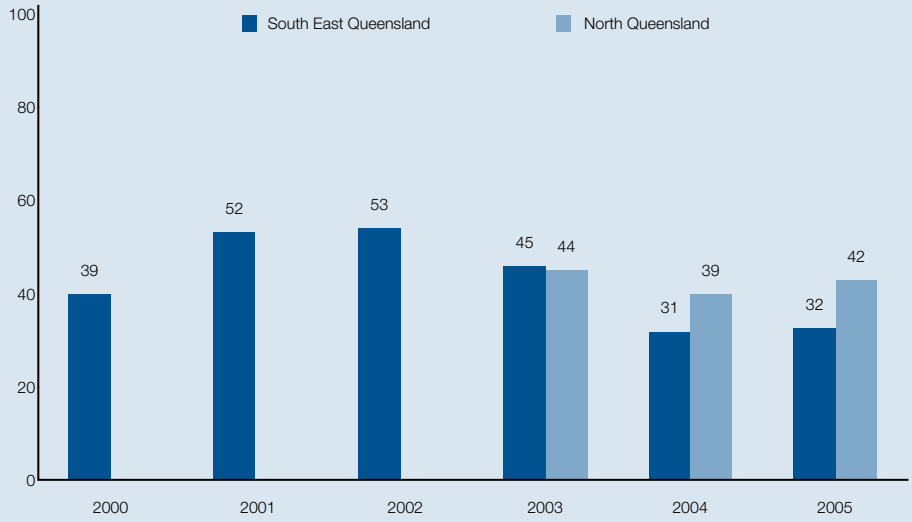
Ineligible determinations are, on average, the result for two in every five offenders referred to the court. Although this rate seems high, it is equivalent to other Australian drug court programs such as those in Western Australia and New South Wales (see Crime Research Centre 2003; Social Policy Research Centre 2004). The rate has fluctuated from as low as 31 percent in South East Queensland for offenders referred in 2004, to as high as 53 percent in 2002 (see Figure 1.3).

Figure 1.2: Drug court assessments, participant status and graduations at 2 June 2006



Source: AIC, Queensland drug court database [computer file]

Figure 1.3: Ineligibility by region and referral year, 2000–05 (percent)[a]



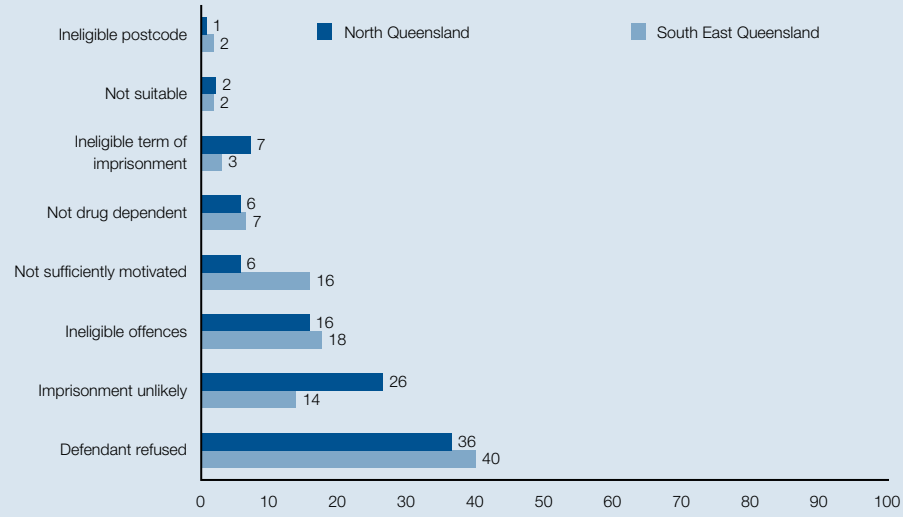
a: Results for 1 January to 6 June 2006 are omitted because a large number of offenders were yet to be assessed
Source: AIC, Queensland drug court database [computer file]

Using the drug court database it is possible to identify the reasons why offenders are determined ineligible (see Figure 1.4). The most frequently cited reason (39%) was that the offender refused to appear before the drug court magistrate or was otherwise unwilling to participate in the drug court program. Like most other court diversionary programs in Australia, voluntary participation is a protection afforded to offenders to ensure procedural fairness and equity. In the case of the Queensland drug court program, any offender who does not wish to participate can elect to return to the normal court process for the determination of their case. Their decision not to participate is not used by the court in any subsequent sentencing decisions. The proportion of offenders unwilling to participate was similar in both South East and North Queensland (36% and 40%, respectively) and was the most prevalent reason for ineligibility identified in both regions.

The second most prevalent reason for ineligibility was evenly split between two categories – those who were referred to the court for ineligible offences and those who were unlikely to face a term of imprisonment (17% in each case). By region however, the South East Queensland drug courts were slightly more likely to issue 'ineligible offence' rather than 'imprisonment unlikely' determinations. The opposite was true for North Queensland, where a much larger proportion of offenders were deemed ineligible because they were unlikely to face a term of imprisonment. As North Queensland contributes only a relatively small proportion of all ineligible offenders, the disparity in North Queensland makes little difference to the total proportions measured across both regions.

The regional differences illustrated in Figure 1.4 highlight two potential sources of variation across the drug court program. The first possibility is that offenders in each region are sufficiently different in their prior criminal history, drug use history and motivation. The second is that the operational procedures of the drug court in each location are sufficiently different to result in the demonstrated variability in the reasons for ineligible determinations. Suppose that in North Queensland, the criminal history assessment is conducted prior to all other forms of assessment, while in the South East, the motivational assessments were conducted first. This procedural variation is unlikely to result in differences in the overall rate of ineligible determinations but rather, differences in the reasons recorded for that determination. Since an offender need only fail one of the many different criteria, the order in which the drug court assessments are conducted has the potential to result in variations across courts and regions.

Figure 1.4: Reasons for ineligibility (percent)



Source: AIC, Queensland drug court database [computer file]

Of the 758 offenders who were issued with an IDRO in the six years to June 2006, 174 (23%) were actively participating in the program, 401 (53%) had been terminated and 183 (24%) had successfully completed the program and graduated (see Figure 1.2). In terms of the prevalence of graduation and termination, there were no regional differences, with both the North and South East Queensland programs reporting almost identical termination/graduation rates.

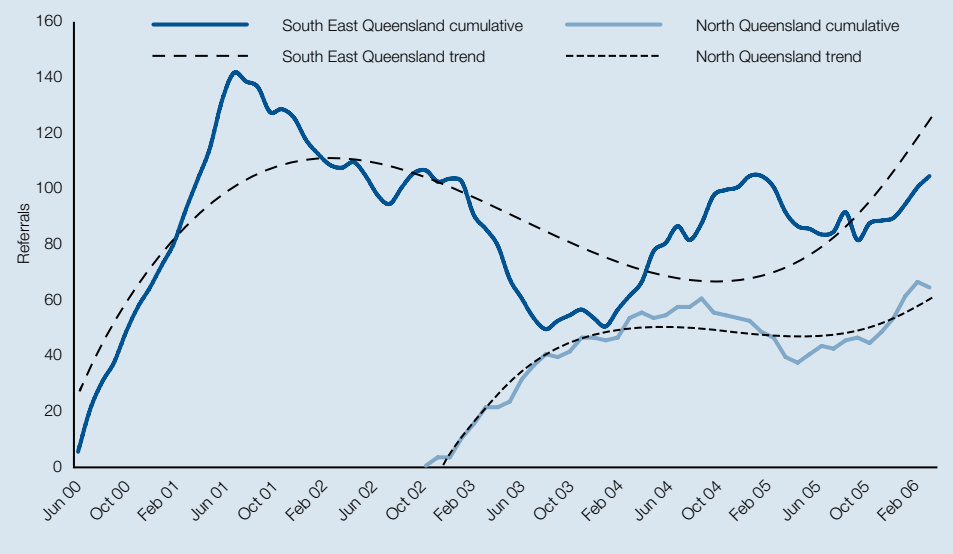
With participants graduating and terminating each month, the drug court should be viewed as a dynamic process, whereby participants will enter and exit at different times. As a result, the operational level of the drug court program can be illustrated using a measure of current

order rates. This measure depicts the number of people participating in the program at the end of each month. It is calculated as the number of IDROs issued, less the number of participants who have been terminated or graduated (see Figure 1.5).

As with the referral rates, the current order rates have fluctuated over the six years of the drug court's operation in South East Queensland and over four years in the North Queensland program. In the South East, participation rates grew steadily by about 12 participants per month until July 2001, where the number of active orders peaked at 141. After this time, and as a result of the imposition of the participation cap in August 2001, current order rates declined. This suggests that a greater number of participants were terminating or graduating from the drug court than were being granted an IDRO. This decline lasted through until September 2003, where the South East courts experienced their lowest number of current orders (excluding the initial implementation period). This low period coincides with drug courts ceasing to take referrals as a result of the uncertainty of the program's continuation. After starting again, the current order rates increased and have since fluctuated between 80 and 100 orders each month.

In North Queensland, current order rates peaked about two years into the program's operation (November 2004), and have since fluctuated between 40 and 70 current orders each month.

Figure 1.5: Current Intensive Drug Rehabilitation Orders per month by region, June 2000 – February 2006 (number)[a]



a: Current order rates are calculated as the cumulative number of successful participants less the cumulative number of terminated, graduated and withdrawn participants

Source: AIC, Queensland drug court database [computer file]

Offender profile

Each offender referred to the drug court program undergoes a number of assessments, ranging from criminal history to health and drug use. Each assessment is designed to provide information to the drug court team about the eligibility and suitability of each referral, and to inform the development of individualised programs for drug rehabilitation. In this section, the assessment information, as recorded on the drug court database, is used to profile offenders who received an IDRO.

Demographic

The age, gender, marital status and Indigenous status of all offenders referred to the drug court program are collected. Employment status, education and literacy skills data are obtained from an employment assessment of which 94 percent (n=715) of offenders had completed. The general profile of offenders is one of unemployed males, aged in their late twenties and likely to be married or living in a de facto relationship. Just over one in ten are female (14%), employed (12%) and/or identify as Aboriginal or Torres Strait Islander (10%). In terms of education and skills, the offenders report having completed, on average, nine years of schooling, and 70 percent are assessed as having basic or less than basic skills.

This offender profile is generally consistent regardless of region. Some differences, although statistically significant, are not by any means large. Although a greater proportion of the offenders are female in North Queensland, females only represent 18 percent of the total offender population.

In both the South East and North Queensland drug courts, Indigenous offenders (including both Aboriginal and Torres Strait Islanders) account for between 10 and 11 percent of the total participant population. The percentage of offenders who identify as Indigenous Australians does not differ between the two regions, although the category of self-reported Indigenous status does. Table 1.1 illustrates that the majority of Indigenous offenders in North Queensland identify as Aboriginal only, while in the South East the majority identify as being of both Aboriginal and Torres Strait Islander origin. This is most likely the result of differences in data recording practices in each location.

There are no regional differences between the offenders in their employment or schooling, however, the skills assessment reveal that more North Queensland offenders are rated as having average or above-average skills, while offenders in the South East are more likely to have basic or less than basic skills.

These socio-demographic differences may be the result of a number of factors, not the least of which is the local demographic profile of each region or the local offender profile.

Table 1.1: Self-reported demographic characteristics of offenders by region

	Total		Percent by region	
	Number	Percent	South East Queensland	North Queensland
Gender*				
Male	655	86	88	82
Female	103	14	12	18
Indigenous status*				
Aboriginal	31	4	3	8
Torres Strait Islander	3	<1	<1	1
Both Aboriginal and Torres Strait Islander	43	6	7	2
Non-Aboriginal and Torres Strait Islander	681	90	90	89
Marital status*				
Married/de facto	625	82	81	86
Never married	84	11	10	14
Other (including divorced/separated)	49	7	9	0
Employment[a]				
Yes	88	12	13	12
No	617	88	87	88
Skills assessment*				
Illiterate	10	1	1	2
Poor basic skills	57	8	6	14
Basic skills	431	61	66	43
Average skills	198	28	24	40
Above average skills	15	2	2	1
Age				
Mean age at referral	755	29	29	29
Education[a]				
Mean years of schooling	715	9	9.3	9.6

* Statistically significant difference at p<.05

a: Estimates are for offenders having completed that assessment

Source: AIC, Queensland drug court database [computer file]

Health history

In terms of health history, Table 1.2 shows the administration rates for each of the health assessments conducted during the preliminary assessment phase. With the exception of the SF36, assessments were generally administered to more than 90 percent of those offenders referred to the program. The SF36 health survey was not administered in South East Queensland in the initial stages of drug court operation, which may partly explain the comparatively low administration rates.

The SF36 health instrument is used as the primary tool for assessing the general health of each offender. It is also used to measure an offender's health (and change in their respective health ratings) at the time of graduation to each new phase. It is an instrument previously used by the Australian Bureau of Statistics in the general population health survey conducted in 1996 (ABS 1996). It asks respondents to self-report on a number of health-related indicators, some of which can be compared as the offender progresses through the program. During the preliminary assessment phase most offenders rate their health as either good or very good. Few (13%) considered themselves to be in excellent health while only four percent reported their health as poor.

In addition, the Queensland Alcohol, Tobacco and Other Drug Services conducts an assessment of the general health and mental health of each offender referred to the drug court. Selected results from both of these surveys suggest that few offenders reported having AIDS or Hepatitis B, while 46 percent reported having hepatitis C. In terms of mental health, seven percent (n=53) reported a history of suicidal thoughts and 13 percent reported a history of self-harm.

As Table 1.2 shows, there were notable differences in the self-reported health and mental health scores between South East and North Queensland. Those in South East Queensland were more likely to report being in excellent health and were generally more positive about their current health situation. In fact, more than twice as many offenders in the South East reported being of excellent health (16% compared to 6%). Moreover, a greater number of South East Queensland offenders reported having previously had suicidal thoughts, while North Queensland referrals were more likely to report having previously engaged in self-harm.

Table 1.2: Self-reported health history of offenders by region				
	Total		Percent by region	
	Number	Percent	South East Queensland	North Queensland
Administration of preliminary assessments				
SF36 – General health assessment*	471	62	56	80
Alcohol, Tobacco and Other Drug Services health assessment	722	95	100	82
Alcohol, Tobacco and Other Drug Services mental health assessment	722	95	99	82
Self-reported health at referral*				
Excellent	59	13	16	6
Very good	143	31	33	25
Good	179	38	37	40
Fair	75	24	12	24
Poor	12	4	2	4
Other health indicators				
AIDS or hepatitis B	5	1	1	0
Hepatitis C*	330	46	52	23
Mental health indicators				
Reporting suicidal thoughts	53	7	8	4
Reporting self-harm*	92	13	9	24

* Statistically significant difference at p<.05

Source: AIC, Queensland drug court database [computer file]

Drug use history

To be eligible for an IDRO it is a requirement that an offender be dependent on illegal drugs. Moreover, it is generally the case that their drug dependency should have contributed directly to their recent offending behaviour. Given this, it is particularly important that the drug court adequately and accurately assesses whether offenders are dependent on illegal drugs prior to being granted an IDRO. Table 1.3 summarises the drug use indicators for all participants that had completed the drug use assessment.

Almost all (98%) had used an illegal drug in the six months prior to their referral and three-quarters (74%) were considered dependent on at least one illicit drug (including cannabis) based on three positive responses to the seven items of the DSM-IV dependency test. Examined by drug type and aggregated across the South East and North Queensland drug courts, the following results were found:

- cannabis – 61 percent reported recent use and 14 percent were dependent
- amphetamines – 66 percent reported recent use and 36 percent were dependent
- opiates – 48 percent reported recent use and 32 percent were dependent
- benzodiazepines – 19 percent reported recent use and one percent was dependent
- poly-drug use – 65 percent reported the recent use of more than one drug and seven percent were poly-dependent. The most common poly-drug use combination was cannabis and amphetamines.

Analysis by court location reveals a number of notable differences. Offenders referred to the South East Queensland courts were significantly more likely to report the recent use of amphetamines, opiates and benzodiazepines than their counterparts referred to the North Queensland courts. Moreover, in South East Queensland offenders were also more likely to report poly-drug use in the six months preceding their referral (72% compared with 42%). In terms of drug dependency, offenders referred in South East Queensland were more likely to report dependency on opiates, while offenders in the North were more likely to report dependency on cannabis and/or amphetamines. Although offenders in the South East were more likely to report poly-drug use in the six months prior to their referral, they were less likely to report poly-dependency.

The age of illicit drug initiation and the relationship to the development of the criminal career have been examined by a number of Australian studies. The findings indicate that:

- offenders are more likely to report drug use at a younger age than either injecting drug users or the general population (Johnson 2001)
- minor offending is most likely to precede the first use of illegal drugs among incarcerated male offenders (Makkai & Payne 2003).

The drug use assessment conducted as part of the Queensland drug court program includes self-reported data on the age of first use of a variety of illicit drugs. These estimates, presented in Table 1.3, are calculated for those offenders reporting use of that drug in the past six months. It illustrates the mean age of first use for all Queensland drug court offenders as:

- any illicit drug – 16 years
- cannabis use – 14 years
- amphetamines – 17 years
- opiates – 17 years.

This profile is consistent with research on incarcerated male offenders (Makkai & Payne 2003). However, some differences exist between South East and North Queensland. Although offenders in the South East reported commencing the use of any drug at the same average age as their counterparts in the North, they were more likely to commence

amphetamine and opiate use at a younger age. Also, despite offenders in the South East commencing use of amphetamines an average of one year earlier than offenders in the North, for opiates the difference was three years. Those who had used opiates in South East Queensland had commenced using them at an average of 17 years of age.

Finally, offenders completing the drug use assessment were asked whether they had previously accessed any form of treatment for their substance abuse. The results indicate that around 40 percent of offenders had done so – the vast majority being from South East Queensland (53% compared to 6%).

Table 1.3: Self-reported drug use among offenders by region

	Total		Percent by region	
	Number	Percent	South East Queensland	North Queensland
Administration of preliminary assessments				
Drug use and dependency assessment	721	95	99	82
Used in the six months prior to initial assessment				
Cannabis	458	64	62	67
Amphetamines*	266	69	71	60
MDMA	34	5	4	6
Opiates (including morphine)*	367	51	58	26
Benzodiazepines*	145	20	23	10
Methadone and other pharmacotherapy	39	5	6	5
Poly-drug use (two or more)*	500	69	74	52
DSM-IV dependent				
Cannabis*	99	14	5	43
Amphetamines*	273	38	35	48
Opiates (including morphine)*	253	35	39	20
Benzodiazepines*	7	1	<1	3
Poly-dependency (two or more)	53	7	4	20
Age of initiation[a]				
Mean age of first drug use (any drug)	699	15	15	15
Mean age of first cannabis use	535	13	14	13
Mean age of first amphetamine use*	568	17	17	18
Mean age of first opiate use*	437	16	16	20
Prior treatment history*				
Accessed prior treatment	304	42	53	6

* Statistically significant difference at p<.05

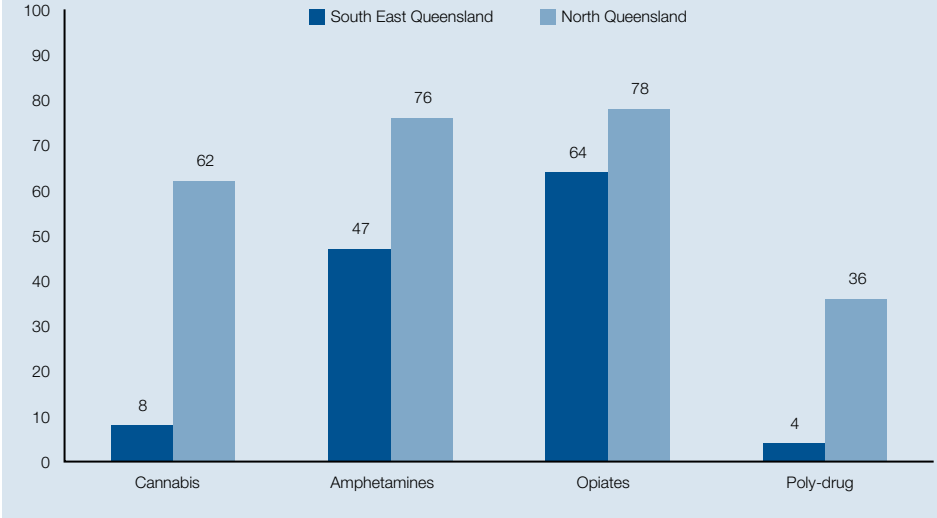
a: Age of initiation is calculated for offenders having used that particular drug

Source: AIC, Queensland drug court database [computer file]

With the exception of opiates, offenders in North Queensland were more likely to report dependency on those drugs they were using in the six months prior to their referral, while participants in the South East more frequently used drugs on which they were not necessarily dependent. This is confirmed in Figure 1.6, which presents the dependency rates among recent users of each drug type. The percentages reflect the number of offenders that reported recent use of each drug type and who then scored positive to the DSM-IV dependency criteria. For instance, only eight percent of offenders in the South East who had used cannabis in the six months prior to their referral were assessed as dependent on cannabis. This compares to 62 percent in North Queensland.

These results provide some information about the general nature of drug use in the different regions. In the South East, it is possible that those who are referred are likely to have greater access to a more diverse range of drug types (drug market variations) or perhaps they use drugs in different social situations (behavioural). It is not possible to determine definitively why these differences exist, but they highlight that drug courts are likely to operate within different local drug markets and, because of this, the characteristics of dependency and drug use are likely to be variable.

Figure 1.6: Recent use to dependency conversion rates by region (percent)



Source: AIC, Queensland drug court database [computer file]

Recent criminal history

The recent criminal history for each of the drug court offenders was obtained from the drug court database and is indicative of the number and type of offences for which an offender had been referred to the drug court for assessment. The data were available for 94 percent of offenders, who, on average, were facing eight charges. For the vast majority of offenders, at least one of these charges was for a property offence (93%) – the most common of all offence categories. Half of the offenders appeared before the drug court for at least one drug-related offence, including possession, utensil possession or administration. Since the drug court operates at the magistrates court level, serious drug offences, such as sale, cultivation or trafficking, would not be included as they would normally be dealt with in the higher criminal courts. Of the other offence types:

- 40 percent of offenders appeared for at least one road or other traffic offence
- 42 percent appeared for at least one breach offence, including breach of bail, probation or community corrections orders
- 17 percent appeared for a disorder offence, including public drunkenness, offensive language and loitering.

Regional differences existed with South East Queensland offenders having, on average, a greater number of charges than their North Queensland counterparts (8.5 compared with 7.7). Moreover, they were more likely to be referred to the drug court for property offences (96% versus 82%), and less likely to be referred for drug offences (46% versus 67%).

Table 1.4: Recent criminal offending – offence type and average number of referring charges by region

	Total		Percent by region	
	Number	Percent	South East Queensland	North Queensland
Offence category				
Violent	137	19	18	23
Property*	660	93	96	82
Drug*	361	51	46	67
Drink driving	36	5	5	5
Roads and traffic	283	40	40	38
Disorder*	121	17	19	12
Breach	301	42	42	43
Other	298	42	43	40
Number of referring charges				
Mean number of charges*	711	8	8.5	7.7

* Statistically significant difference at p<.05

Source: AIC, Queensland drug court database [computer file]

Conclusion

As at 2 June 2006, the Queensland drug court program, including both the South East and North Queensland programs, had received a total of 1,361 referrals. Just over half of these (n=758, 56%) were deemed eligible by the drug court magistrate and received an IDRO.

There was a range of reasons why a referred offender was not granted an IDRO. The most common (in about 40% of cases) was that the offender refused to participate and elected to have their matter dealt with through the normal criminal justice process. Participant consent is a cornerstone of the drug court program, where offenders must be fully informed of the nature of the program and, by law, agree to allow their matter to be dealt with by the drug court magistrate. The remaining 60 percent of offenders whose referral did not result in an IDRO were deemed ineligible by the drug court magistrate. Ineligible determinations may result if an offender has been referred to the drug court program but:

- for a disqualifying offence (primarily violence)
- for offences that are unlikely to result in a term of imprisonment
- where the offender has previously served a disqualifying term of imprisonment
- is assessed as not sufficiently motivated or not drug dependent.

Of the 758 offenders issued with an IDRO the majority were male (86%), married or living in a de facto relationship (82%), non-Indigenous (90%) and aged 29 years on average. They reported their health as generally good or very good. Nearly half were reported as having hepatitis C, while seven percent reported having had suicidal thoughts and 13 percent reported having previously engaged in self-harm. In terms of drug use, cannabis and amphetamines were the two drug types most frequently cited as having been used in the six months before referral, although more than half reported having also used opiates during that time. Poly-drug use was common among drug court offenders, although they were not always assessed as dependent on each of the drug types they reported using. Almost all offenders accepted in the drug court program were facing one or more property charges (93%), while half (51%) were facing drug charges. In all, offenders were facing an average of around eight charges at the time of their referral.

There were some notable differences between those offenders referred to the North Queensland drug court and those referred to the South East Queensland drug court. Generally, a greater proportion of participants in the North were female. They were more likely to report lower on the general health scales, were less likely to have hepatitis C and report having suicidal thoughts, but more likely to report having engaged in self-harm. Recent use of, and dependency on, opiates were lower in North Queensland, while the recent use of, and dependency on, cannabis were higher. Poly-dependency was higher among participants in the North, who were also more likely than their South Eastern

counterparts to be dependent on the drugs they had been recently using. Participants in the South East, it seems, used a greater number and variety of drug types, but were not assessed as dependent on the various drugs they used. Finally, participants in the North were generally less likely to be facing property charges, but more likely to be facing drug charges than those in the South East.

These data raise a number of important issues for the implementation and operation of the drug court program in Queensland. Firstly, despite efforts to maximise the referral of Indigenous offenders to the program (including the funding of an Indigenous-specific residential drug rehabilitation program in North Queensland) numbers have remained relatively low (around 10% in both regions).

The second matter of particular importance is the apparent high levels of poly-drug use, and health and mental health-related issues faced by Queensland drug court offenders. This is consistent with a growing body of research that suggests that drug use may be only one of many different problems faced by offenders in the criminal justice system. The implication of this is that the treatment and rehabilitation services offered as part of the drug court program need a holistic approach to the management and treatment of drug-dependent offenders. Moreover, the assessment of each offender at the time of referral is crucial for the identification of key issues, and must be tailored to ensure that the drug court team has sufficient information about the problems faced by an offender that may otherwise affect their capacity or willingness to comply with a drug court order.

2 Drug court participation and activity, 2000–06

Participation indicators

Once accepted into the drug court program, offenders are issued with an IDRO. This is a court-imposed order that is offered in lieu of a custodial sentence, which is suspended for the duration of the offender's participation. The suspended sentence is known as the initial sentence and is the period of custody for which the participant would otherwise have faced should he or she not have agreed to participate in the drug court program. The initial sentence is also what the drug court magistrate subsequently reviews at the completion of the IDRO, whether by termination or graduation, when a final sentence is imposed.

As well as being the drug court's formal response to an offender's charges, the IDRO also forms the basis of each offender's individualised drug treatment and rehabilitation plan. It outlines each of the supervision, drug treatment and compliance monitoring requirements. Although the precise details and conditions may vary among offenders depending on their individual needs, the drug court program has a number of core elements that all offenders are subject to. These include:

- a phase graded treatment plan designed to ensure that each participant satisfies key elements of drug rehabilitation
- supervision through court review and drug court team monitoring
- compliance monitoring through urinalysis testing.

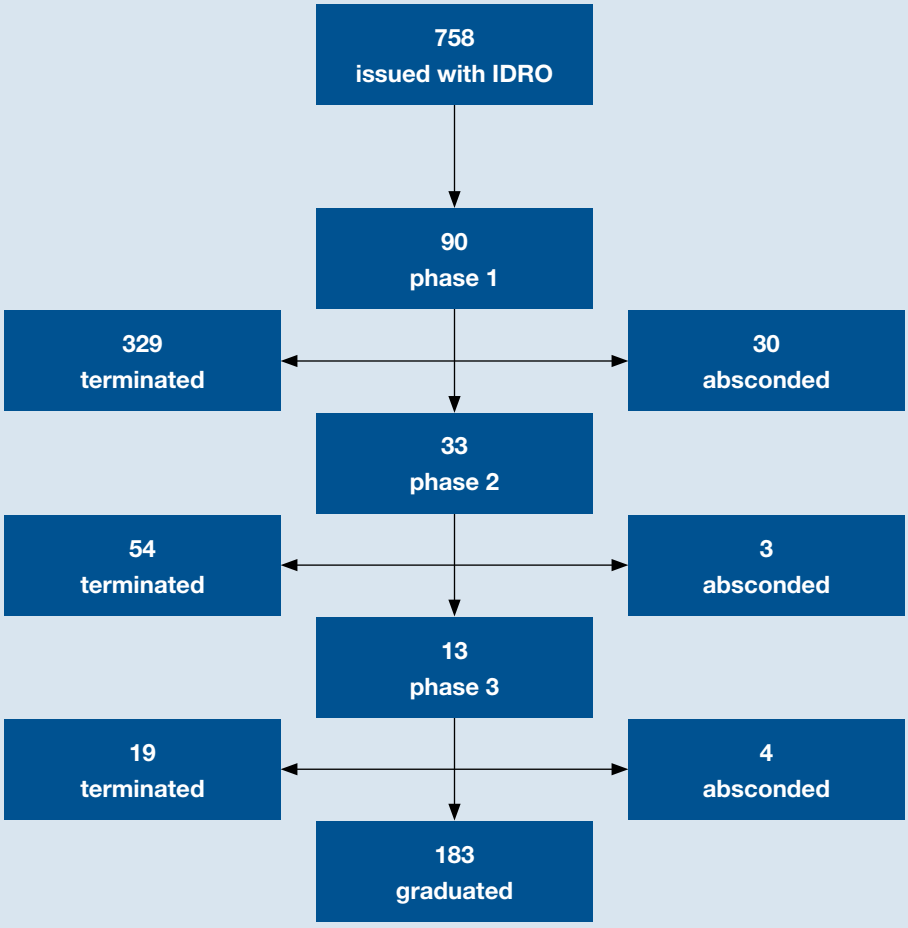
First and foremost, the drug court program is to be completed in three distinct phases. The first – phase 1 – is aimed at promoting drug abstinence and requires that participants undergo a number of drug treatment and rehabilitation programs. Successful completion is indicated when a participant has been drug free for a period of no less than 12 weeks (84 days). Phase 2 is aimed a promoting stabilisation, and participants are required to satisfy the drug court team that they can remain drug and crime free. In the final phase – phase 3 – participants are encouraged to seek education and employment opportunities while still abstaining from both drugs and crime. This final phase is aimed at community re-integration, and it is hoped that by the time of final graduation, participants will have developed the social and support networks to continue a lifestyle without drugs and crime, and without the coercion and intensive supervision of the court.

Figure 2.1 illustrates the participation status of the 758 IDROs offered by the Queensland drug court program. As at 2 June 2006:

- 135 (18%) were actively participating in the drug court program
- 402 (53%) had been terminated or withdrawn voluntarily
- 37 (5%) had absconded from the program and were yet to be apprehended
- 183 (24%) had successfully completed their IDRO and graduated.

Of the 135 participants who were actively participating, 89 were in phase 1, 33 in phase 2 and 13 in phase 3. Of those who had absconded or terminated from the program, the majority did so in phase 1.

Figure 2.1: Intensive Drug Rehabilitation Order participant status and graduations at 2 June 2006



Source: AIC, Queensland drug court database [computer file]

It is possible for drug court participants to move backwards in the drug court program. Phase regression is sometimes used by the court as a means for sanctioning non-compliance, whereby a participant returns to the beginning of their current phase, or to the beginning of an earlier phase. This means that a participant may successfully complete phase 1, graduate to phase 2, but then return to phase 1 only to be terminated soon after. In fact, the most complex progression pattern exhibited in the drug court database was of a participant who successfully graduated to phase 3 (through phases 1 and 2) but then regressed to phase 2 for non-compliance. After additional sanctioning in phase 2 the participant regressed again to phase 1, essentially re-starting their drug court program. After returning to the beginning of phase 1, the participant again graduated through to phase 3 and then successfully completed the drug court program.

The fact that a participant can regress backwards in the drug court program complicates the interpretation and analysis of the drug court data. Calculating phase averages, such as the number of days it took a participant to complete each phase, the number of court appearances in each phase or the number of positive drug tests submitted in each phase, is difficult since events may have occurred in an episode that was not successfully completed. Moreover, there is the potential that subsequent episodes of a phase may require less time to complete as the drug court magistrate takes into consideration the fact that the participant had already undertaken, albeit unsuccessfully, at least part of that phase. Table 2.1 presents estimates of the number of days it took a participant to successfully complete each phase for the first time.

Each phase is expected to last for approximately 12 weeks (84 days), and program completion should occur no less than 36 weeks after commencement (252 days). In Queensland, the average time taken to complete phase 1 was 170 days – the shortest time was 35 days and the longest was 629 days. Those who completed phase 2 did so after an average of 316 days from commencement, or 146 days since graduating from phase 1. Phase 3 completion (or final graduation) occurred after an average of 463 days from commencement, or 147 days after graduating from phase 2. Because the phase 3 completion rates are estimated for those who successfully graduate from the drug court program, the estimated time to phase 3 completion is the same as the average time to final graduation.

In all cases, the phase averages are higher than the phase medians, suggesting that a small number of participants spent disproportionately longer in each phase, thereby biasing the averages upward. One possible explanation for this is that a small group of participants took longer on average to complete each phase than the bulk of participants. Another possibility is that a small proportion of participants absconded and each day spent at large adds to the upward bias. To control for this, it is possible to adjust each participant's phase completion values by subtracting the number of days spent at large from the total days recorded for each phase. This means that the averages and medians reflect the total number of active participation days, and are not upwardly biased for offenders who

abscond frequently or for long periods of time. The adjusted values are presented in the final column of Table 2.1. In all cases the averages remain higher than the medians.

Table 2.1: Phase and program completion

	Number	Mean (min/max)[a]	Median	Adjusted mean/median[b]
Average days to first completion				
Phase 1	329	170 (35/629)	132	158/126
Phase 2	234	316 (112/1,029)	284	313/284
Phase 3	183	463 (196/1,186)	420	461/420
Average days to final outcome				
Graduation	183	463 (196/1,186)	420	461/420
Termination	402	345 (2/1,904)	281	238/169

a: Estimates are for participants having completed that phase

b: Adjusted mean excludes days spent at large (during periods of absconding)

Source: AIC, Queensland drug court database [computer file]

Just more than half (n=438, 58%) of the 758 participants placed in the drug court program were no longer actively participating at 2 June 2006, and had not graduated. The majority (n=402) of these participants had been terminated or voluntarily withdrawn, while 37 had absconded and were yet to be apprehended by the police. Those who had been terminated had done so after an average of 345 days from being placed in the drug court program. After adjusting for time spent at large, termination occurs after an average of 238 days of active participation. Again, the vast majority of this time was spent in phase 1 – the phase where most participants terminate.

Table 2.2 presents some of the basic demographic, drug use and offending indicators for three groups of IDRO participants:

- those who had terminated or withdrawn (n=402)
- those who had graduated (n=183)
- those who were still actively participating at the time of this evaluation, or had absconded (n=172).

In terms of demographics, there were few statistically significant differences between those who were terminated or withdrawn and those who had graduated. The only difference was that terminated participants were more likely to have been unemployed (91%) than either graduates (81%) or those currently participating in the program (87%). The proportion that were male or identified as an Aboriginal or Torres Strait Islander did not differ between the groups.

Offending history is measured using information about the offences committed by each participant that resulted in their referral to the drug court program. Table 2.2 shows the proportion of each group whose referring charges included a violent, property, drug or breach-related offence. Breach-related offending includes breach of bail, probation or parole. Overall, more graduates had been referred for a violent offence than terminates, although violent offending may also include violent acquisitive crimes such as robbery. In terms of property offending, there was a one percentage point difference between all three groups, with more than 90 percent of each group being referred for at least one property offence. There were also some significant differences between the groups regarding the proportion being referred for drug or breach-related offending – graduates were more likely to be referred for drug offences than terminates, while terminates were more likely to be referred for breach-related offences.

Drug dependency is measured using the DSM-IV diagnostic criteria for each drug a participant reports having used in the six months preceding their referral. There was no difference among graduates, terminates or current participants in the percent considered in the preliminary assessment phase as dependent on cannabis or amphetamines. Terminates, however, were more likely to have been assessed as dependent on opiates (including morphine and heroin) (40%) than were graduates (28%).

Table 2.2 also provides information on whether a participant had absconded during the preliminary assessment phase, before their placement on the IDRO. Although not statistically significant, terminated participants were slightly more likely to have absconded than either the graduates or active participants.

Table 2.2: Summary indicators by Intensive Drug Rehabilitation Order participation status at 2 June 2006 (continued)			
	Terminated/ withdrawn (n=402)	Graduated (n=183)	Active (n=172)
Demographics			
Male	88	81	88
Indigenous	10	9	11
Married*	77	79	99
Unemployed at referral*	91	81	87
Recent offending history (referring charges)			
Violent offence	16	23	22
Property offence	93	94	93
Drug offence*	46	55	58
Breach offence*	43	34	51
Dependency status			
Cannabis	13	14	17
Amphetamines	37	40	36
Opiates (including morphine)*	40	28	31
Poly-dependent*	7	4	11
Program participation			
Absconded during preliminary assessment	15	12	13

* Statistically significant difference at p<.05

Source: AIC, Queensland drug court database [computer file]

Absconding

For the purpose of comparison, active participants in Table 2.2 also include those who had absconded and failed to return to the drug court program for case determination. This is because absconding participants are still deemed active until such time as they are apprehended and brought back before the court. Alternatively, the Queensland drug court legislation allows for an ex-parte termination of participants who have absconded and failed to re-appear before the drug court within three months – in which case the participant would then be classified as a terminated participant.

While only 37 participants were recorded as having absconded from the program and not been terminated ex-parte, a greater number of participants (n=409; 54% of all 758 IDROs) had absconded at least once during their participation. Table 2.3 provides a summary of key

indicators for all drug court participants who had absconded from the program at least once, regardless of their status, at 2 June 2006. The absconding details are provided by phase, calculated for each participant who had entered that phase. The results suggest that:

- Of the 758 participants placed onto an IDRO, 54 percent had absconded at least once. The average number days until the first episode of absconding was 28 from the date of admission, and each participant was absent for an average of 20 days.
- Of the 330 participants who entered into phase 2, 22 percent absconded at least once. The average number of days until the first episode of absconding was 73 from the date of graduation to phase 2, and each participant was absent for an average of 17 days.
- Of the 234 participants who entered phase 3, nine percent absconded at least once. The average number of days until the first episode of absconding was 84 from the date of graduation to phase 3, and each participant was absent for an average of 14 days.

Table 2.3: Absconding by phase

	Phase 1	Phase 2	Phase 3
Number entered phase	758	330	234
Percent absconding at least once	54	22	9
Median days from phase entry to first failing to appear	28	73	84
Median days absent on first fail to appear	20	17	14

Source: AIC, Queensland drug court database [computer file]

Final sentences

At the time of termination or final graduation, drug court participants are issued with a final sentence. In handing down the final sentence the drug court magistrate considers each participant's performance in the drug court program and amends their sentence accordingly. In the case of graduated participants, the successful completion of the drug court program typically results in the reduction of the initial suspended imprisonment sentence to an order of probation or recognisance. For terminated participants, who are presumably terminating due to non-compliance or an unwillingness to participate, the quantum of the initial suspended prison sentence will be invoked, less any time already spent in prison during their IDRO. A participant may spend time in prison as a result of being sanctioning for non-compliance. If a participant has committed fresh offences while on the IDRO, the drug court magistrate may also, in handing down the final sentence, increase the length of imprisonment to account for these new criminal convictions.

Table 2.4 illustrates the final sentences received by both graduates and terminates of the Queensland drug court program. The final sentence may be ordered either as an aggregate global sentence for all listed convictions, such as a concurrent probation order, or with

separate sentences ordered for different charges. This means that any single participant may have received more than one of the sentencing outcomes listed in Table 2.4. The frequency counts therefore represent the number of participants who received that sentence for at least one of their listed convictions.

For graduates, the majority (n=164, 90%) received an order of probation, 10 received an Intensive Corrections Order and 10 received a suspended prison sentence. Thirty-one graduates received other penalties in addition to their probation order, including monetary fines and community service orders. Terminated participants most often received a prison sentence (n=310, 91%).

The final column of Table 2.4 provides the average sentence length for each of the orders resulting in custody or supervision. It was difficult to distinguish between sentences ordered concurrently from those ordered cumulatively in the drug court database. It was therefore impossible to determine the precise length of the total final sentence for each participant. The 'average maximum' sentence for any single conviction represents the average length of the longest sentence imposed. The maximum number of days served in probation for any one single charge was 303 days for graduates. Terminates handed a prison sentence received an average maximum sentence of 427 days for any single offence. Most participants were likely to be sentenced concurrently, so the average maximum values are considered to be reasonably representative of a participant's total final sentence.

Table 2.4: Final sentence for graduates and terminates

	Number	Percent	Average maximum days per conviction[a]
Graduates			
Probation	164	90	303
Intensive Corrections Order	10	5	75
Suspended prison sentence	10	5	162
Other[b]	31	17	n.a.
Terminates			
Prison	310	91	427
Intensive Corrections Order	61	18	476
Suspended prison sentence	26	8	529
Probation	16	5	600
Fine	6	2	n.a.

a: The highest penalty for any single charge, averaged across all participants receiving that penalty

b: Other includes fines, community services orders and recognisance orders in addition to probation

n.a. Not available

Source: AIC, Queensland drug court database [computer file]

Program requirements

Drug treatment

Drug treatment is offered as part of the Queensland drug court program using various treatment modalities:

- **residential treatment** – where participants are required to live inhouse at the treatment centre while undergoing specifically designed treatment programs
- **non-residential drug treatment** – where participants live in the community but attend drug treatment programs through the Alcohol, Tobacco and Other Drug Services organisation
- **pharmacotherapy** – where participants are permitted to use prescription drugs, such as methadone, naltrexone or buprenorphine, as a substitute for an illicit substance
- **detoxification** – a specific program, usually conducted in custody or residential care, whereby participants undergo drug withdrawal in a controlled and supervised environment. Detoxification is a key component of both the residential and non-residential drug treatment programs, but is offered independently after identified periods of new drug use.

The number of IDRO participants that had accessed residential or non-residential treatment is indicated in Table 2.5. In total, 491 participants were placed into a residential treatment program at least once and 330 participants were placed in a non-residential program. In terms of pharmacotherapy, 41 participants had undergone methadone maintenance, 12 had been prescribed buprenorphine and one naltrexone. Forty-two participants had undergone a separate detoxification program other than that offered in the residential or non-residential programs.

Table 2.5: Drug treatment, episodes and participation numbers as at 2 June 2006

	Episodes	Number of participants
Non-residential rehabilitation program	4,879	330
Residential rehabilitation program	1,118	491
Methadone maintenance	98	41
Detoxification	52	42
Buprenorphine	14	12
Naltrexone	1	1

Source: AIC, Queensland drug court database [computer file]

Court appearances

A core component of the Queensland drug court program is the requirement that participants appear before the drug court team at a scheduled court appearance. Initially, these appearances are conducted weekly, however as the participant progresses in their rehabilitation program the number of required court appearances is reduced and/or replaced with alternative meetings, such as the treatment team meetings. There are a number of different reasons why a participant might be required to attend court. A performance review is scheduled by the drug court team to assess each participant's compliance with their IDRO. In total, for all participants granted an IDRO, there were 13,492 court review appearances as at 2 June 2006 (see Table 2.6).

Should a participant fail to comply with their IDRO, they may be required to appear before the court for a special mention. This is a non-scheduled appearance that allows the court to sanction or reprimand a participant for breaching the conditions of the IDRO. In Queensland, the drug court heard a total of 2,934 special mentions.

Overall, as at 2 June 2006 the Queensland drug court program had recorded 20,894 appearances for participants who were admitted to an IDRO. The last row of Table 2.6 provides the absolute number of court appearances including those for participants who were eventually unsuccessful in their drug court referral. The total is 23,536 appearances over the life of the Queensland program.

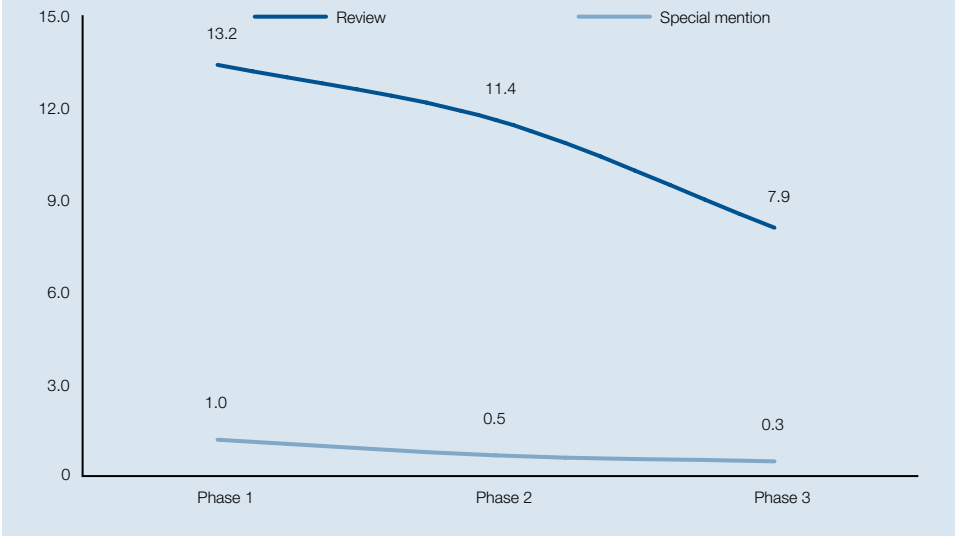
Table 2.6: Court appearances as at 2 June 2006 (number)

	South East Queensland	North Queensland	Total
Pre-IDRO mention	3,554	914	4,468
IDRO review	10,834	2,658	13,492
Special mention	2,351	583	2,934
Total (for all participants admitted to an IDRO)	*16,739*	*4,155*	*20,894*
Total (including unsuccessful referrals)	*18,900*	*4,636*	*23,536*

Source: AIC, Queensland drug court database [computer file]

Figure 2.2 presents the standardised average number of court appearances attended by participants in phases 1, 2 and 3. The averages are calculated as a rate per 180 days (six months) for all participants who completed that phase. The results indicate that in phase 1, participants were required to appear before the court an average of 14 times every six months – 13 of which were for a regular scheduled review and one for a special mention. In phase 2, participants appeared in court on average 12 times every six months. This drops to eight appearances in phase 3.

Figure 2.2: Average six-monthly court appearance rates by phase (number)



Source: AIC, Queensland drug court database [computer file]

Participant program involvement

Drug court participants are required to undertake a variety of programs while on their IDRO. For the most part, these programs are offered through the Department of Corrective Services or the Alcohol, Tobacco and Other Drug Services. Table 2.7 reports the number of attendance episodes as recorded on the Queensland drug court database, as well as the number of participants to which these episodes were attributable. An episode is defined as any single recorded event in the drug court database, and may refer to either a daily, weekly or monthly participation episode. As at 2 June 2006:

- 30 participants had undertaken 174 episodes of anger management
- 132 participants had undertaken 500 episodes of the life-skills program
- 128 participants had undertaken 1,098 episodes of the cognitive skills program
- 80 participants had undertaken 228 episodes of abuse counselling.

Table 2.7: Program episodes and participation numbers as at 2 June 2006		
	Episodes	Number of participants
Anger management	174	30
Life skills	500	132
Cognitive skills	1,098	128
Relapse prevention	1,047	140
Substance abuse education	14	4
Abuse counselling	228	80
Ending offending	6	2
Domestic violence counselling	24	20
Mental health counselling	3	3

Source: AIC, Queensland drug court database [computer file]

Compliance monitoring

Compliance with the requirements of the IDRO is strictly monitored by the drug court. Non-compliance may be defined as any act or omission that contravenes a participant's undertaking to the IDRO and the drug court. The formal mechanisms for monitoring compliance can be divided into three main areas:

- urinalysis testing – to monitor a participant's abstinence from illicit drugs
- criminal offence monitoring – to ensure that no fresh offences are committed
- program participation – attendance at, and satisfactory participation in, each program.

Failure to comply with one or more of these requirements may result in the imposition of a sanction, and multiple episodes of non-compliance may be grounds for program termination.

Urinalysis testing

Urine testing is an important component of the Queensland drug court pilot program. Section 24(1b) of the *Drug Rehabilitation (Court Diversion) Act 2000* sets out the requirement that participants report for drug testing to an authorised corrective services officer as directed. The Drug Rehabilitation (Court Diversion) Regulations 2000 Schedule 5(4) constrains the frequency of testing to the minimum phase requirements of:

- twice weekly during phase 1
- once weekly during phase 2
- twice fortnightly during phase 3.

To facilitate the random testing process, all participants subject to an IDRO must be notified in writing that they are required to comply with the urine testing regime, including random tests, as directed by their supervising officer. Each day, unless prior exemption has been granted, the participant must be prepared to receive a telephone call between the hours of 7.00am and 8.00am directing them to report to their local area office for a urine test, or agree to receive a home visit from the mobile drug testing unit. Table 2.8 illustrates the total number of completed urinalysis and positive drug tests since the inception of the Queensland drug court. As at 2 June 2006, 45,365 urine tests had been completed. The majority were screening tests, including random tests (78%), and 667 alcohol breath tests had been administered.

The total number of positive drug tests was 3,955 (9% of all tests). By each drug type, the positive test results were:

- 2,312 for cannabis (five percent)
- 757 for amphetamines (two percent)
- 753 for opiates (two percent)
- 913 for benzodiazepines (two percent).

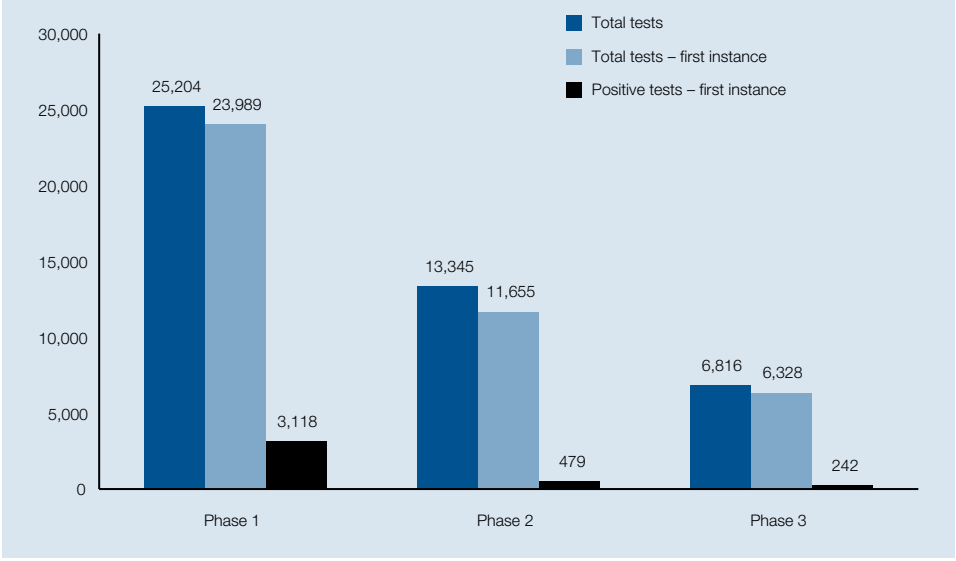
Table 2.8: Urine testing at 2 June 2006 (number)

	South East Queensland	North Queensland	Total
Urine testing			
Alcohol breath test	659	8	667
Screening test	24,717	10,571	35,288
Confirmatory test	66	36	102
Supervised test	8,787	521	9,308
Total	*34,229*	*11,136*	*45,365*
Positive tests			
Alcohol	12	45	57
Cannabis	968	1,344	2,312
Amphetamines	439	318	757
Opiates	512	241	753
Benzodiazepines	570	343	913
Methadone	368	21	389
Cocaine	16	6	22
Any drug	2,059	1,896	3,955
Percent of all tests positive to any drug	*6*	*17*	*9*

Source: AIC, Queensland drug court database [computer file]

Figure 2.3 indicates the distribution of drug tests and positive drug tests by phase. As noted, the total number of tests administered to participants in all phases was 45,365. Of these, 25,204 were administered to participants in phase 1, 13,345 in phase 2 and 6,816 in phase 3. The declining number of tests is indicative of the graduated testing regime noted earlier, as well as the declining number of participants. In terms of positive tests, the number submitted in phase 1 was 3,118, which is equivalent to 13 percent of tests submitted. In phase 2, the number and proportion of positive tests declined to 479 and four percent, respectively. Finally in phase 3, 242 of the 6,328 tests submitted were positive to at least one illegal substance (4%). It is interesting to note the same proportion of positive tests submitted in phases 2 and 3.

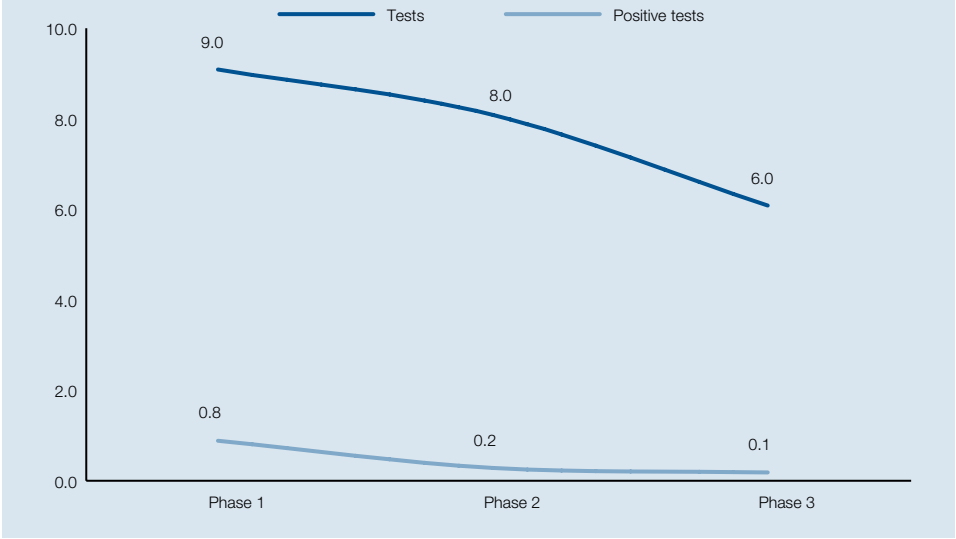
Figure 2.3: Urine testing by phase (number)



Source: AIC, Queensland drug court database [computer file]; n=45,365

Consistent with the testing regime mentioned above, Figure 2.4 illustrates the average number of completed and positive urine tests by phase. To ensure accurate comparative data, phase averages are presented as monthly rates to control for the varying lengths of time spent by participants in each phase. The results suggest that participants submitted, on average, nine drug tests every 30 days in phase 1, eight per month in phase 2 and six per month in phase 3. The proportion of submitted positive tests was nine, three and two percent, respectively. This suggests that on average, one in every 11 tests submitted in phase 1 will be positive. This compares to one in every 40 tests submitted in phase 2 and one in every 60 tests submitted in phase 3.

Figure 2.4: Average monthly urinalysis testing by phase (number)[a]



a: Phase estimates are for participants having completed that phase – phase 1 (n=329), phase 2 (n=234), phase 3 (n=183)
Source: AIC, Queensland drug court database [computer file]

Sanctions and rewards

The Queensland drug court has a range of sanction and reward options available to manage an offender during his or her IDRO. Sanctions may be imposed on an offender who fails to comply with the conditions of his or her IDRO, while rewards may be offered in recognition of compliance.

In terms of non-compliance, there is a variety of different reasons why the drug court team may impose a sanction. These are presented in Table 2.9. Note that the reason recorded on the drug court database may, at times, be a generic code for any number or any type of non-compliance. In Queensland, 2,005 sanctions were handed down as at 2 June 2006. Most (n=1,025) were handed down by the court for a breach of order, which is a generic code. Forty-four participants were sanctioned specifically for failing to appear, 103 for failing to provide a urine sample and 29 for new criminal charges.

As some participants may receive multiple sanctions for the duration of their participation, the percentage of all 758 participants who received at least one sanction is provided. In all, 68 percent of IDRO participants received at least one sanction. Fifty-five percent received a sanction for a breach of order, 40 percent for using drugs and eight percent for failing to provide a urine sample.

By region, a greater proportion of participants in North Queensland received a sanction (73%) compared with the South East (66%). Significant differences between North and South East Queensland might be the by-product of variations in recording practices rather than actual breach patterns among individuals. This is particularly so where a participant appears for multiple breaches at the one court appearance. Differences in the way a magistrate deals with multiple breaches may skew the data entry process and produce false differences between the courts. For example, a participant has committed multiple breaches. The first magistrate might decide to combine all breaches together and impose just one sanction – the final database result is likely to indicate one sanction and one breach. The second magistrate, however, might impose single, but less severe, penalties for each individual breach, resulting in multiple breach records on the drug court database.

Table 2.9: Sanction reason by type and region as at 2 June 2006

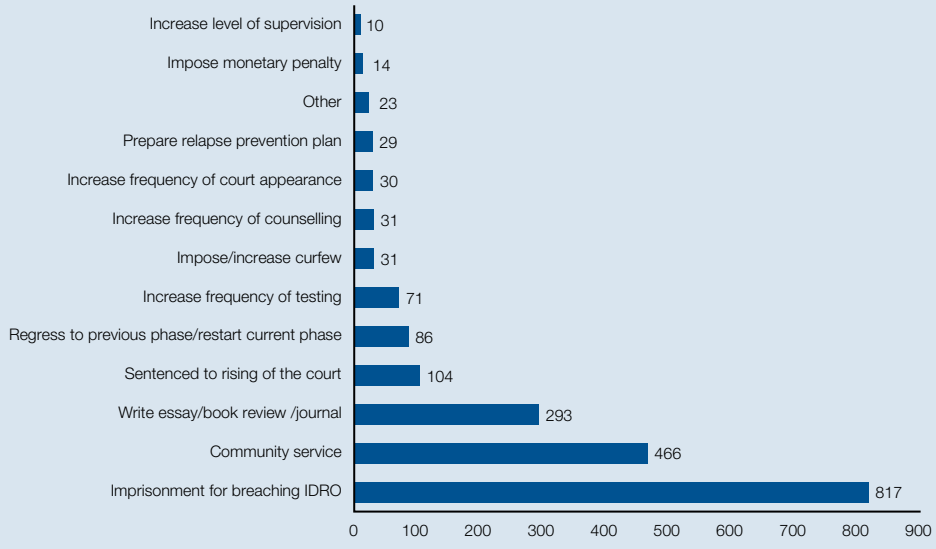
	Total (number)	Percent of IDRO participants	Percent in South East Queensland	Percent in North Queensland
Dishonest sample	10	1	0	4
New charges	29	3	1	8
Failure to give sample	103	8	5	17
Failing to appear	44	5	4	8
Using drugs	708	40	33	58
Breach of order	1,025	55	56	53
Not recorded	86	7	6	11
Total	*2,005*	*68*	*66*	*73*

Source: AIC, Queensland drug court database [computer file]

Figure 2.5 illustrates the type and frequency of sanctions used by the drug court. Forty-one percent of all sanctions handed down resulted in imprisonment, the most common sanction used. This was followed by community service, which accounted for 23 percent of all sanctions handed down by the court.

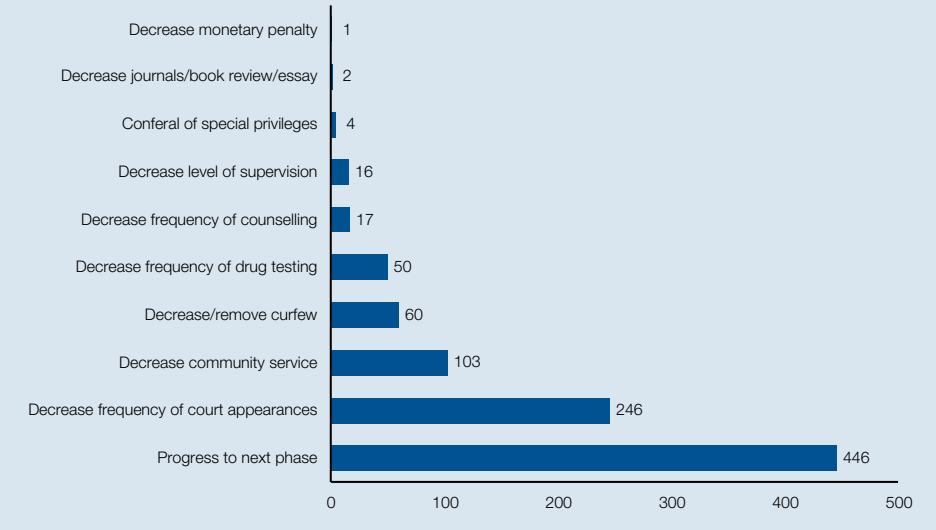
In terms of rewards, progression to the next phase was most common (47%), followed by a decrease in the frequency of required court appearances (26%) (see Figure 2.6). Other popular rewards included a decrease in community service, a decrease or removal of a curfew (presumably imposed as a result of a previous sanction) or a decrease in the frequency of drug testing.

Figure 2.5: Sanctions by type and number as at 2 June 2006



Source: AIC, Queensland drug court database [computer file]

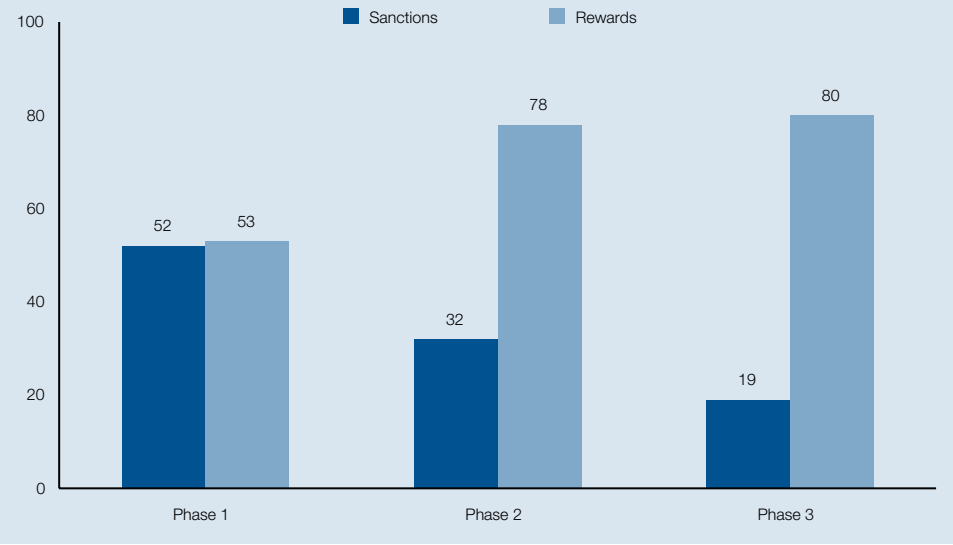
Figure 2.6: Rewards by type and number as at 2 June 2006



Source: AIC, Queensland drug court database [computer file]

Figure 2.7 illustrates the relative prevalence of sanctions and rewards for each of the three drug court phases. The prevalence rates are calculated as the percentage of all persons having completed a phase who, for the duration of their participation, received either a reward or sanction. For participants completing phase 1, around half had received a sanction and half had received a reward. By phase 2, only one in three participants had received a sanction, while the proportion receiving a reward increased to 78 percent. In phase 3 the prevalence of sanctions decreases again, such that only 19 percent of participants were sanctioned, while 80 percent of participants received a reward.

Figure 2.7: Sanctions and rewards by phase (percent)[a]



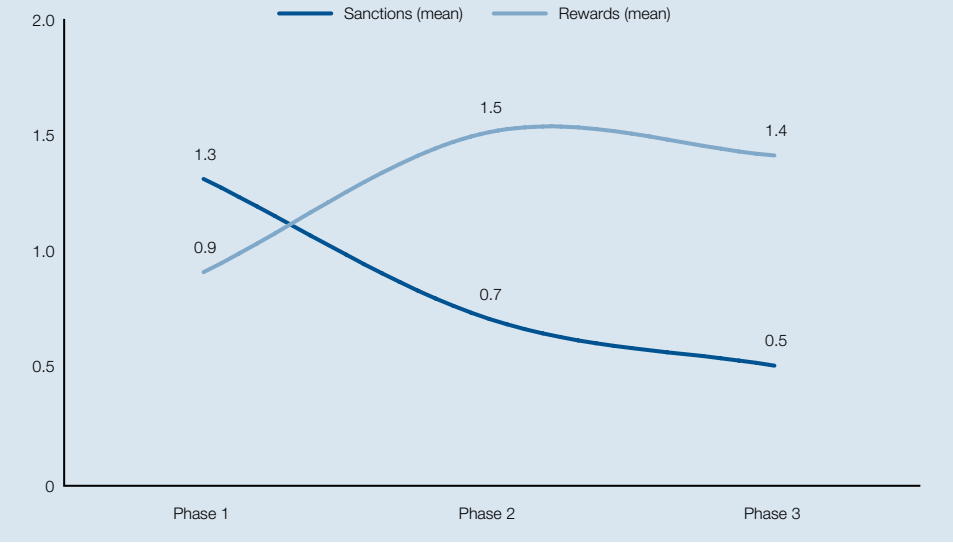
a: Phase estimates are for participants having completed that phase – phase 1 (n=329), phase 2 (n=234), phase 3 (n=183)
Source: AIC, Queensland drug court database [computer file]

The prevalence rates in Figure 2.7 illustrate that in phase 1, an equivalent number of participants received sanctions as they did rewards. In phases 2 and 3, participants are far more likely to receive rewards than sanctions. It is possible, however, for a participant to receive multiple sanctions or rewards. Figure 2.8 shows the standardised average sanction and reward rates for every 180 days (six months) spent in each phase. For example, 52 percent of participants who completed phase 1 received a sanction at an average rate of 1.3 every six months. Rewards, although received by a similar proportion of participants in phase 1, were received at a lower rate of 0.9 every six months.

In phases 2 and 3, the standardised sanction rate decreased to 0.7 and 0.5 sanctions every six months, respectively. This suggests that not only do fewer participants in these phases receive sanctions, they also receive them at a lower rate than in phase 1. The reward rate increased to 1.5 and 1.4 every six months in phases 2 and 3. Not only are more participants

likely to be rewarded, the number of rewards received on average also increased. These data support the general process of the drug court program, where progression to each new phase is marked by greater improvement in compliance (reduced sanctions and increased rewards).

Figure 2.8: Sanctions by phase (average per 180 days) (number)[a]



a: Phase estimates are for participants having completed that phase – phase 1 (n=329), phase 2 (n=234), phase 3 (n=183). Averages are calculated among participants having received at least one sanction or reward

Source: AIC, Queensland drug court database [computer file]

Conclusion

This section has examined many of the key elements integral to the provision of the Queensland drug court pilot program. It has illustrated that as at 2 June 2006:

- Of the 758 offenders admitted to the Queensland drug court pilot program, 183 had successfully completed the requirements of their IDRO and graduated. Of the remaining participants, 402 had been terminated, 37 had absconded and 135 were actively participating.
- On average, graduates completed the drug court program in 463 days. Terminated participants were terminated after an average of 283 active days of participation.
- There were few apparent differences between those who graduated and those who terminated, except those who terminated were more likely to be opiate users, unemployed and to have been referred on one or more breach-related charge.

- More than half of all participants had absconded at least once while on the drug court program. The average number of days it took for a participant in phase 1 to abscond was 28, and the average time spent at large was 20 days.
- A total of 23,536 court appearances had occurred. The majority were for the standard IDRO court review, while a smaller proportion (n=2,934) were indicated as special mention appearances.
- A total of 45,365 urinalysis tests had been completed, of which nine percent were positive. Cannabis was the drug most frequently identified followed by benzodiazepines.
- The most frequently used sanction was imprisonment followed by community service. Rewards were awarded just as often as sanctions in phase 1, but more often in phases 2 and 3.

3 Drug court recidivism outcomes

This section examines the reoffending patterns of the first 100 graduates of the Queensland drug court program. The purpose is to identify whether the drug court was successful in delivering a sustained reduction in criminal offending within no less than two years after graduation. Having successfully completed their IDRO on 2 June 2004, the 100th graduate marks the commencement of the data collection period, with criminal justice data collected until 2 June 2006.

For the purposes of this study, two measures of recidivism were developed: the time taken to reoffend, and the frequency of reoffending. The former is measured using a survival analysis technique, while the latter is measured using a multi-level model of change. The data on offending were obtained as de-identified criminal history records from the Queensland Police Service's criminal history database. These records pertain to those criminal offences committed by an individual for which they were detected, apprehended, charged and convicted. Convictions were coded into daily offending episodes, the estimates of reoffending are indicative of the number of days each offender was convicted of a new offence. These conviction data are commonly used in recidivism analysis as proximal measures of offending and are consistent with the data used in previous evaluations of the Queensland drug court program.

The analysis is divided into two sections. The first examines recidivism for the duration of participation in the drug court program, while the second measures recidivism in the period after graduation. In doing so, three observation periods are identified:

- The **pre-intervention period** – which includes an offender's entire criminal history from the date of their first recorded offence to the date of their intervention (that is, their IDRO or imprisonment). In some analyses, this pre-intervention period is restricted to the previous 12 months so that comparative pre and post-intervention analyses can be provided.
- The **intervention period** – which includes all criminal events recorded during the period of an individual's participation in the drug court program. For graduates and terminates, this includes the time between admission and graduation or termination. Since the prisoner comparison group was in prison for the duration of their intervention, they are unable to freely commit criminal offences and were therefore not observed.
- The **post-intervention period** – which includes all criminal events recorded from the completion of the intervention to 2 June 2006. For graduates this is from the date of graduation. For terminates and the prisoner comparison group, it is from the date of release from prison, which in the case of terminates is subsequent to their termination.

To determine whether drug court participants were less likely to reoffend, it was necessary to compare their reoffending patterns to one or more comparison groups. In this study, two comparison groups were identified. The first was a sample of 100 drug court participants who had terminated from the program. Like graduates, these were the first 100 drug court participants to terminate from the program. The second was a group of 107 prisoners identified, using administrative records held by the Queensland Department of Corrective Services, as being comparable to drug court clients. For the remainder of this report,

outcome data will be presented for each of the three groups, referred to as graduates (n=100), terminates (n=100) and the prisoner comparison group (n=107).

Results

Recidivism while in the drug court program

There is no single perfect measure of recidivism while offenders participate in the drug court program. This is for two reasons. First, an individual's opportunity to offend is influenced by the length of time they spend in the program, which differs from individual to individual. Second, the length of time an individual spends in the program is not unrelated to their offending. In drug court analyses, the mechanism of censoring is considered to be informative, since that which ends the observation of an individual's opportunity to offend is considered to be influenced by the actual event being measured, in this case reoffending. Among graduates for example, recidivism is likely to prolong the time to graduation. However for terminates, reoffending is likely to precipitate an earlier termination. In the presence of varying observation periods and informative censoring, Singer and Willett indicate that 'no statistical method can produce unbiased analyses' (2003: 319).

In light of this, the extent to which drug court graduates and terminates reoffend while in the program is calculated using two methods. The first is to generate the percentage of offenders with at least one recorded offence episode between the start and end of their IDRO. This calculation is sufficient to generate group-based estimates, but fails to account for a common problem in program analysis which is that not all offenders have an equal opportunity to reoffend. The second method is to use a 'lifetable' generated from the survival analysis technique, which produces time-specific recidivism estimates. This takes into account that not all offenders participate in the drug court program for equal lengths of time and, as a result, have unequal opportunities to reoffend. For the reasons mentioned above, these analyses are used for indicative purposes only.

Table 3.1 provides the percentage of both graduates and terminates who had at least one recorded episode of criminal offending while participating in the drug court program. Overall, for any offence type, 80 percent of graduates and 92 percent of terminates had reoffended at least once while on their IDRO. By offence type the reoffending estimates were:

- property offences – 33 percent for graduates and 71 percent for terminates
- violent offences – seven percent for graduates and 18 percent for terminates
- drug offences – seven percent for graduates and 30 percent for terminates.

While it is possible for an offender to be apprehended by the police on a breach of bail, probation or other community corrections order, it is difficult to ascertain from the official police records whether this breach was in relation to a previously recorded offence, or whether the breach itself indicates a new offending episode. This is particularly problematic for the period of drug court participation where a breach may be the result of a failure to comply with the terms of the IDRO, and where each court may deal differently with

breach-related activities that are not necessarily indicative of fresh offending. In addition, should a participant abscond from the drug court program or fail to appear as scheduled, the drug court magistrate may issue a bench warrant for their arrest. This bench warrant is the official mechanism through which police may lawfully apprehend a drug court participant without needing evidence or reasonable suspicion of fresh offending. The fail to appear does not necessarily constitute a new episode of offending, however the recording of the bench warrant as a breach by the police will be subsequently coded as a new offence episode. The implications of this are twofold:

- should a breach be related to a previous offence but given a different date, the breach, if occurring alone on any single day, will be recorded as a new episode of offending and may contribute to the double counting of offending episodes
- should the police record a breach to facilitate the apprehension of a participant who has failed to appear, the breach, if occurring alone on that day, will also be recorded as a new episode of offending.

As such, offence episodes involving a breach are analysed separately in this report as a means to control for any potential bias in the estimation of recidivism. By excluding from the 'any offence' calculations those offence episodes where the only recorded offence was a breach, the actual recidivism rate for graduates declined by almost half, from 80 to 42 percent, over the duration of their IDRO. Although not as large, the proportion of terminates convicted of any offence declined from 92 to 79 percent.

It is not possible to say at this point which of these estimates is the most accurate for determining the level of actual reoffending. However, it is only for the period of drug court participation that such a bias might exist. Given this, the two different measures of 'any offending' are used in this report depending on the comparative analysis being conducted. For analysis that compares graduates and terminates during the period of their drug court participation, the 'any offence' episode measure which excludes breach-only episodes is used to control for the potential bias indicated above. In the pre-post drug court analysis that compares graduates and terminates to the prisoner control group, the 'any offence' episode measure includes the breach-only episodes to ensure relative comparability among each of the three samples in their offending patterns.

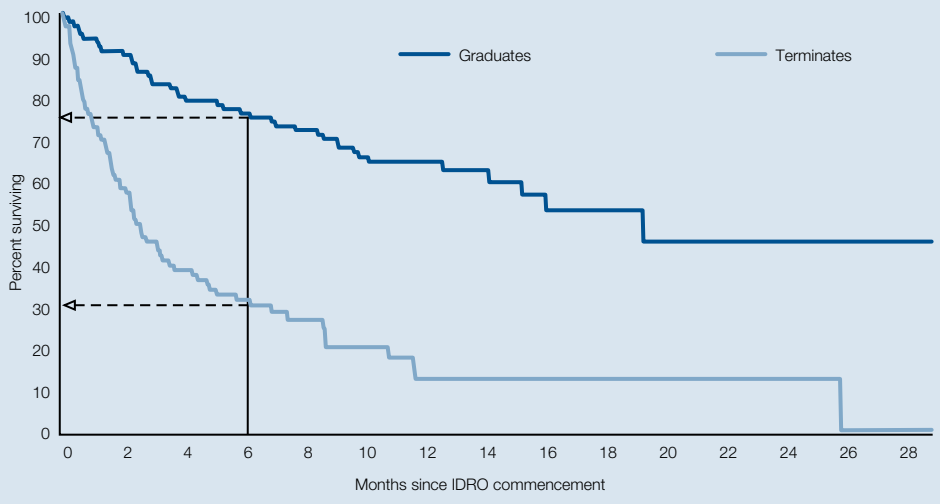
Table 3.1: Reoffending during drug court participation (percent)

	Graduates (n=100)	Terminates (n=100)
Property offence episode	33	71
Violent offence episode	7	18
Drug offence episode	7	30
Breach offence episode	74	79
Other offence episode	15	42
Any offence episode	*80*	*92*
Any offence episode (excluding breach only)	*42*	*79*

Source: AIC, Queensland drug court database [computer file]

Using survival analysis, it is possible to plot reoffending as a function of time, the benefit of which is to illustrate how long it took, on average, for graduates and terminates of the drug court to reoffend. This analysis is undertaken by constructing a lifetable, which calculates the period-by-period probability of reoffending. Plotting these values over time is then used to illustrate the percentage of offenders that did not reoffend, or conversely, the percentage that did. Figure 3.1 illustrates for graduates and terminates the survival function for the time to their first offence. A vertical line at 180 days on the x axis meets each survival curve to provide a corresponding survival percentage on the y axis. The value of the survival percentage indicates the proportion of each group that had survived (that is, not reoffended) within 180 days of receiving an IDRO. The alternative value (100 minus the survival value) indicates the percentage of offenders who did not survive or reoffend.

Figure 3.1: Survival analysis for free days to first offence (not including breach-only offence episodes) during the Intensive Drug Rehabilitation Order



Log-rank test of equality: Total (X^2=49.79, df=1, p=.000)

Wilcoxon statistic: Total (X^2=45.80, df=1, p=.000)

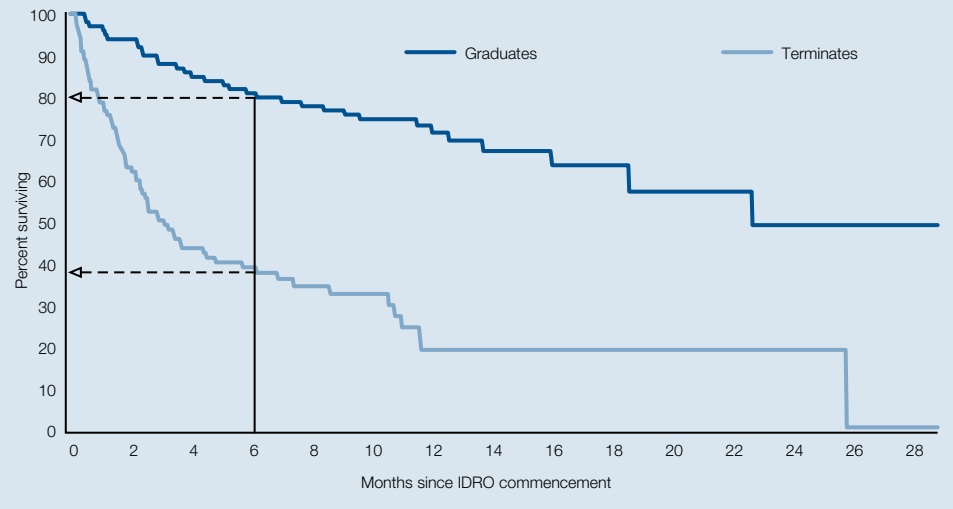
Source: AIC, Queensland drug court database [computer file]

According to Figure 3.1 (and as summarised in Table 3.3), six percent of graduates had been arrested and convicted of at least one new offence episode within the first month of being placed in the drug court program. This increased to 24 percent after six months, 36 percent after 12 months and 47 percent after 18 months. This compares to terminates, of whom one in four had reoffended within 30 days and 88 percent had reoffended within six months.

Note that the reoffending estimates at 18 months are slightly higher than the simple percentage calculation estimates provided in Table 3.1. This might seem odd since the survival calculations have seemingly overestimated reoffending. However, it is important to remember that the survival analysis calculation is an estimated rate of survival at any given point in time. Not all offenders spend equal lengths of time in the drug court program. The survival calculation therefore represents the estimated probability of reoffending for any randomly selected individual should he or she remain in the program for 18 months. But since more than half of each group left (graduated or terminated) the program before 18 months, survival analysis statistically estimates the probability of reoffending higher than the actual simple calculation method.

Similar survival curves may be generated for each specific offence type (see Figures 3.2 and 3.3). Across all offences, graduates had lower recidivism rates than terminates. Table 3.2 summarises the time-specific results and suggests that for property offences, four percent of graduates had committed at least one offence within one month of their placement on an IDRO. This increased to 20 percent within six months, and 29 percent with 12 months. For terminates, the risk of reoffending was higher, with one in five committing at least one new property offence within 30 days of being placed in the drug court program. This increased fourfold (to 81%) within the first 12 months.

Figure 3.2: Survival analysis for free days to first property offence during the Intensive Drug Rehabilitation Order

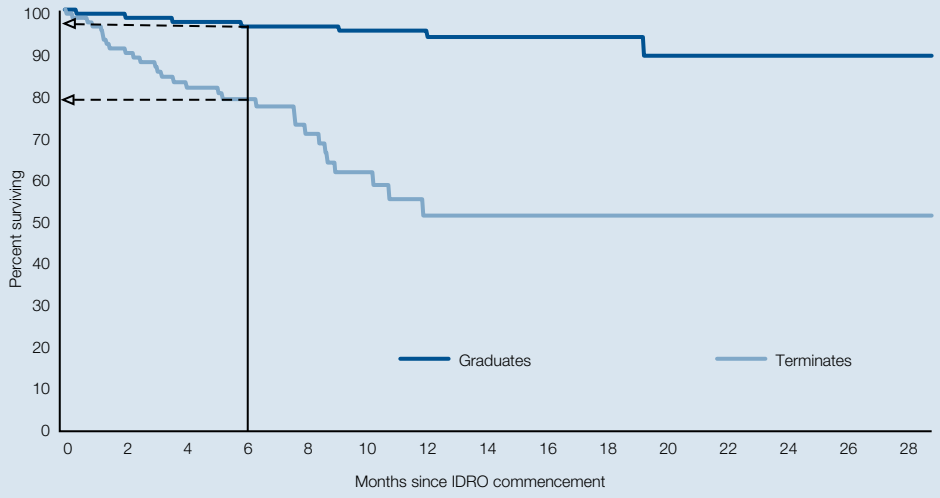


Log-rank test of equality: Total (X^2=51.22, df=1, p=.000)

Wilcoxon statistic: Total (X^2=47.29, df=1, p=.000)

Source: AIC, Queensland drug court database [computer file]

Figure 3.3: Survival analysis for free days to first drug offence during the Intensive Drug Rehabilitation Order



Log-rank test of equality: Total (X^2=35.42, df=1, p=.000)

Wilcoxon statistic: Total (X^2=46.77, df=1, p=.000)

Source: AIC, Queensland drug court database [computer file]

Table 3.2: Summary of survival analysis during drug court participation

	Graduates (n=100)	Terminates (n=100)
Any offence (excluding breach-only offences)		
Percent reoffended within 30 days	6	26
Percent reoffended within six months	24	69
Percent reoffended within 12 months	36	88
Percent reoffended within 18 months	47	88
Property offence		
Percent reoffended within 30 days	4	21
Percent reoffended within six months	20	62
Percent reoffended within 12 months	29	81
Percent reoffended within 18 months	37	81
Drug offence		
Percent reoffended within 30 days	1	4
Percent reoffended within six months	4	21
Percent reoffended within 12 months	6	49
Percent reoffended within 18 months	6	49

Source: AIC, Queensland drug court database [computer file]

The drug court program is a staged intervention that expects its benefits to be cumulative over time. This means that it may not realistically prevent an offender from reoffending, but may serve to reduce the frequency of their offending and, therefore, his or her overall participation in crime. Perhaps the important question is whether, during their participation in the drug court program, graduates and terminates committed fewer offences than they otherwise would have had they not been offered a position in the program.

To answer this question, a multi-level analysis for change is used that conceptualises each individual offender as having a unique growth trajectory which, for every month, increases by the average number of new offending episodes. The growth trajectory summarises the offending experience of each group by pooling together their individual offending episodes. The statistical model examines offending over the 12 months prior to receiving a drug court order and all of the time each offender spends on their IDRO. Every month the number of new offending episodes is added to the previous month's total, generating a count of the total number of episodes committed since the beginning of the observation.

This multi-level technique has three distinct statistical advantages. The first is that it accounts for variations in the number of observable monthly periods among offenders (see Singer & Willett 2003). That is, when pooling together their growth trajectories not all offenders need to be observed for the same length of time. The second is that it facilitates the use of controls such as gender, age and Indigenous status. The third is that each offender's prior criminal history is factored within the model itself, adding to the combined growth trajectory information from which change may be assessed.

When specifying each of the multi-level models, the analysis is interested in the identification of two key elements:

- the rate of growth experienced by each group of offenders up to the point of being placed onto an IDRO
- the extent to which each group's rate of growth changed after being placed onto the IDRO.

The results of the multi-level change analysis (where the base offence unit was for any offence), are presented in Table 3.4 and are illustrated in Figure 3.4. The model includes four primary variables:

- **terminate pre-IDRO growth** – the average growth in offending per month among terminates
- **terminate IDRO change** – the extent to which terminates' pre-IDRO growth rate changes after placement in the drug court program. A positive value indicates that offending increased while a negative value indicates that offending decreased
- **graduate pre-IDRO growth** – the difference between the terminates' and graduates' offending rates prior to their IDRO. A negative value indicates that graduates committed, on average, fewer offences than terminates
- **graduate IDRO change** – the difference between the change in the terminates' and graduates' offending rates after placement in the drug court program. A negative value indicates that the graduates' rate of offending decreased more than the terminates'.

This mix of variables may seem confusing and difficult to interpret. However, like all statistical models the parameter estimates for one group of offenders is generated relative to the baseline estimates of the overall model. In this case, the terminates' rate of offending remains the model's baseline offence rate against which the graduates' rate of offending is estimated and compared. In the 12 months leading up to their placement in the drug court program, terminates committed an average of 0.61 new offence episodes every month, or 3.64 offence episodes every six months. While in the drug court program, their rate of offending decreased by an average of 0.25 offence episodes every month, bringing their average offending rate down to 2.12 offence episodes every six months. Compared to the 12 months prior to their IDRO, terminates experienced a 42 percent decline in the frequency of their offending while participating in the drug court program.

Compared to terminates, graduates committed 0.13 fewer offence episodes each month in the 12 months before entering the drug court program. In other words, the graduates' pre-drug court offence rate was 0.48 episodes per month ([0.61]–[0.13]), or 2.89 episodes every six months. This result was statistically significant (p=.00) which suggests that in the 12 months leading up to their drug court order, graduates committed fewer offences than terminates. While in the drug court program, the graduates' rate of offending declined by an average of 0.41 offence episodes per month ([–0.25] + [–0.16]). Their offending rate while in the drug court program was, therefore, estimated at 0.07 offence episodes each month or 0.40 offences every six months. This represents an 86 percent decline in the frequency of offending while in the drug court program compared to the 12 months prior.

Figure 3.5 presents these calculations graphically, mapping the average bi-monthly growth in offending for each group. Note that the terminates' offending rate increases at a higher rate than the graduates', supporting the finding that terminates committed more offences, on average, than graduates in the 12 months preceding their drug court order. After placement on their IDRO, both terminates and graduates committed fewer offences than they did in the 12 months prior (2.12 and 0.40 offence episodes every six months, respectively). However the decline in offending was greatest among graduates (down by 86%) than terminates (down by 42%).

The p-values presented in Table 3.3 indicate the probability that the parameter estimates are not zero. For example, the terminates' rate of offending in the year before their IDRO was 0.61 offences per month, which according to the model is significantly different from zero. The graduates' rate of offending during the same period was significantly lower than the terminates' (b=–0.13, p=.00). However the graduates' overall offence rate of 0.48 may be tested as a linear combination of the two relevant parameter estimates ([0.61] + [–0.13]), the result of which is also significantly different from zero.

Significance tests for linear combinations are important in multi-level analyses since many of the actual offending rates can only be calculated as the sum of two or more parameter estimates. Table 3.4 provides a summary of these statistical tests. Most importantly, the results suggest that although both the terminates' and graduates' offending rates declined while in the drug court program, graduates experienced a significantly larger decline than their terminated counterparts.

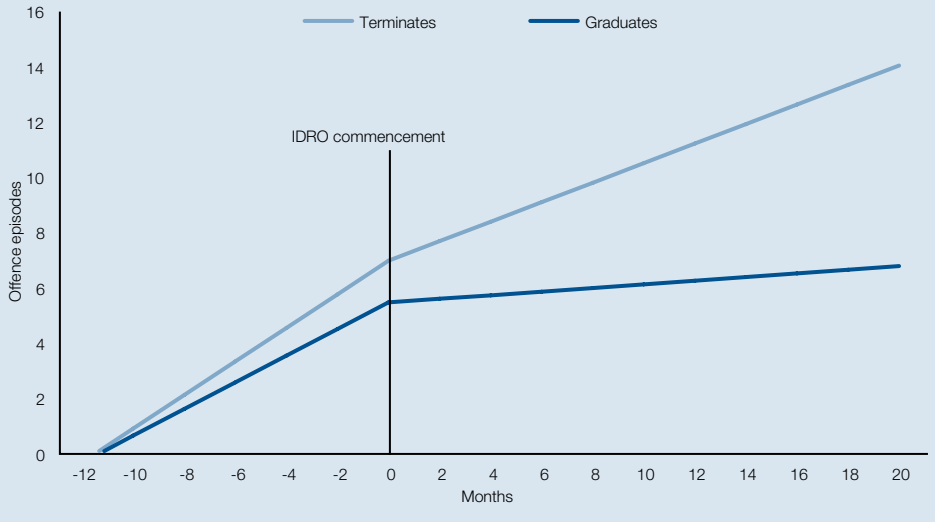
Table 3.3: Multi-level model of change in any offending (not including breach-only offence episodes) during drug court participation

	Parameter	p	Actual estimated offending rate (per month)	Actual estimated offending rate (per six months)	Estimated change in offending	Percent change in offending (versus pre-commencement)
Terminate pre-IDRO growth	0.61	0.00	0.61	3.64		
Terminate IDRO change	–0.25	0.00	0.35	2.12	–1.52	–41.9
Graduate pre-IDRO growth	–0.13	0.00	0.48	2.89		
Graduate IDRO change	–0.16	0.00	0.07	0.40	–2.49	–86.3

Variance components: Within person (2.09 p=.00), Initial status (4.42, p=.00), Rate of change (0.81, p=.00), Covariance (–0.08), Deviance (18488.71)

Source: AIC, Queensland drug court database [computer file]

Figure 3.4: Multi-level model of change in any offending (not including breach-only offence episodes) during drug court participation



Variance components: Within person (2.09 p=.00), Initial status (4.42, p=.00), Rate of change (0.81, p=.00), Covariance (–0.08), Deviance (18488.71)

Source: AIC, Queensland drug court database [computer file]

Table 3.4: Summary statistical tests of change in offending (not including breach-only offence episodes) during drug court participation

	Estimate	Significantly different from zero	Significantly different from terminates
Terminate pre-IDRO growth (per six months)	3.64	**	–
Terminate IDRO growth (per six months)	2.12	**	–
Percent decline in terminate offending	–41.85	**	–
Graduate pre-IDRO growth (per six months)	2.89	**	**
Graduate IDRO growth (per six months)	0.40	**	**
Percent decline in graduate offending	–86.31	**	**

Variance components: Within person (2.09 p=.00), Initial status (4.42, p=.00), Rate of change (0.81, p=.00), Covariance (–0.08), Deviance (18488.71)

** Statistically significant

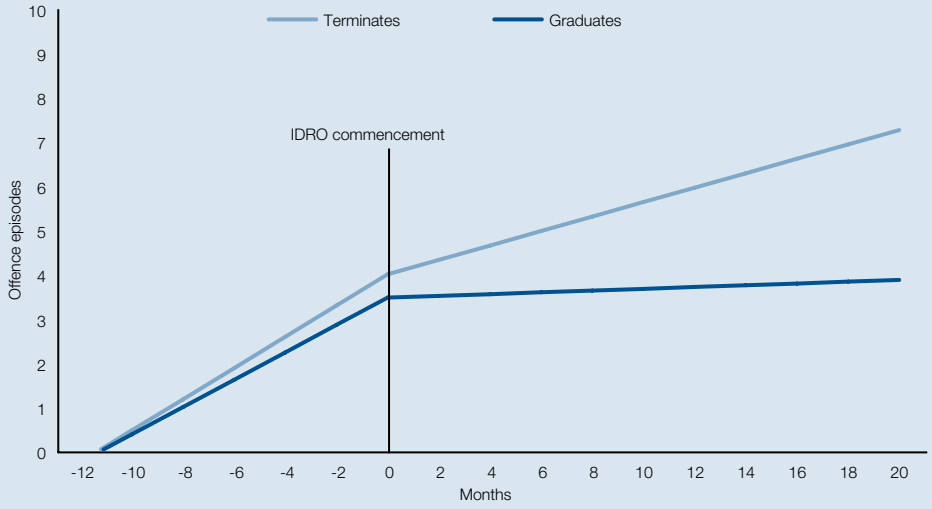
– Not applicable

Source: AIC, Queensland drug court database [computer file]

Similar multi-level analyses may be conducted for each of the various offence types. This is used to determine whether the results seen for all offences are reflected across each different offence category, or whether different offences are seemingly affected in different ways as a result of drug court participation. For example, it may be that at the aggregate level the drug court significantly reduced offending, however, this overall decrease was driven by significant reductions in drug offending and moderate reductions in property offending, or vice versa. The results for two separate multi-level models are presented, the first examining property offending and the second examining drug offending. Figures 3.5 and 3.6 depict the estimated growth trajectories, while Tables 3.5 and 3.6 present the growth rates and significance tests. Overall the results suggest that:

- both graduates and terminates had similar rates of property offending (1.86 and 2.12 offences every six months, respectively) and drug offending (0.28 and 0.43 offences every six months, respectively) in the two years preceding their IDRO
- the rate at which both graduates and terminates committed property offences declined significantly while they were in the drug court program. The graduates' rate of property offending declined by 94 percent, while the terminates' declined by 54 percent
- the graduates' rate of drug offending declined significantly during their IDRO by 89 percent. A significant decline of 72 percent was experienced by terminates
- while graduates' property and drug offending declined by similar percentages (94% and 89%, respectively) terminates' drug offending (72%) declined more than their property offending (54%).

Figure 3.5: Multi-level analysis of change in property offending before and during drug court participation



Variance components: Within person (1.16, p=.00), Initial status (2.06, p=.00), Rate of change (0.05, p=.00), Covariance (–0.02), Deviance (15665.6)

Source: AIC, Queensland drug court database [computer file]

Table 3.5: Summary statistical tests of change in property offending during drug court participation

	Estimate	Significantly different from zero	Significantly different from terminates
Terminate pre-IDRO growth (six months)	2.12	**	–
Terminate IDRO growth (six months)	0.98	**	–
Percent decline in terminate offending	–53.80	**	–
Graduate pre-IDRO growth (six months)	1.86	**	n.s.
Graduate IDRO growth (six months)	0.12	n.s.	**
Percent decline in graduate offending	–93.50	**	**

Variance components: Within person (1.16, p=.00), Initial status (2.06, p=.00), Rate of change (0.05, p=.00), Covariance (–0.02), Deviance (15665.6)

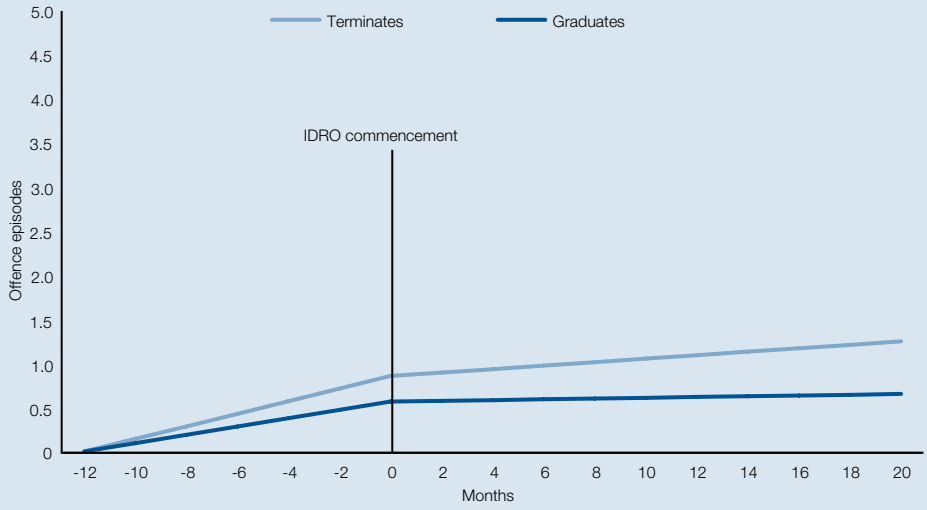
** Statistically significant

n.s. Not significant

– Not applicable

Source: AIC, Queensland drug court database [computer file]

Figure 3.6: Multi-level analysis of change in drug offending before and during drug court participation



Variance components: Within person (0.07, p=.00), Initial status (0.16, p=.00), Rate of change (0.003, p=.00), Covariance (0.00), Deviance (2634.9)

Source: AIC, Queensland drug court database [computer file]

Table 3.6: Summary statistical tests of change in drug offending during drug court participation

	Estimate	Significantly different from zero	Significantly different from terminates
Terminate pre-IDRO growth (six months)	0.43	**	–
Terminate IDRO growth (six months)	0.12	**	–
Percent decline in terminate offending	–72.39	**	–
Graduate pre-IDRO growth (six months)	0.28	**	n.s.
Graduate IDRO growth (six months)	0.03	n.s.	**
Percent decline in graduate offending	–89.28	**	**

Variance components: Within person (0.07, p=.00), Initial status (0.16, p=.00), Rate of change (0.003, p=.00), Covariance (0.00), Deviance (2634.9)

** Statistically significant

n.s. Not significant

– Not applicable

Source: AIC, Queensland drug court database [computer file]

Criminal offending after graduation or termination

The previous section demonstrated significant reductions in both the graduates' and terminates' rates of offending while they participated in the drug court program. These reductions were, not surprisingly, greater for graduates than they were for terminates. However, with both groups demonstrating a significant reduction in offending, one can conclude that regardless of whether offenders graduate or terminate, their offending is reduced relative to their activity in the 12 months prior. The reductions were dramatic for the graduates, ranging from 89 percent in drug offending to 94 percent in property offending. But were these reductions sustained after they graduated from the program?

This section looks beyond the drug court program, examining the extent to which graduates and terminates return to criminal offending after graduating or terminating. For graduates, offending is measured from the date of graduation. For the terminates, who are typically imprisoned to serve the remainder of their sentence, offending is measured from the date of their release from prison. A third group – the prisoner comparison group – is used to compare with terminates and graduates. This group was identified as being as similar as possible to those who were offered an IDRO. The prisoners were selected because their offending was seemingly drug related and had the drug court been in operation at the time of their incarceration, would have most likely been offered an opportunity to participate. They represented the closest possible match to what 'would' have happened to the drug court participants had they not been offered an IDRO. Like terminates, the prisoners in the comparison group were observed from the date of their release from prison.

Table 3.7 presents the post-intervention reoffending prevalence estimates for each of the three groups. These results are the simple prevalence calculations for any offender in each group who had been convicted of a new offence before 2 June 2006. Overall, 70 percent of graduates had reoffended after graduating from the drug court program. This compares

Table 3.7: Reoffending after drug court participation (percent)

	Graduates (n=100)	Terminates (n=100)	Prisoner comparison (n=107)
Property offence	43	63	72
Violent offence	15	21	33
Drug offence	31	51	47
Breach offence	49	67	65
Other offence	26	45	43
Any offence	*70*	*82*	*80*
Any offence (excluding breach only)	*62*	*75*	*79*

Source: AIC, Queensland drug court database [computer file]

to 82 percent of terminates and 80 percent of the prisoner comparison group. Fewer graduates than either terminates or the prisoner comparison group had reoffended across all offence types. For example:

- 43 percent of graduates had committed at least one new property offence compared to 63 percent of terminates and 72 percent of the prisoner comparison group
- 31 percent of graduates had committed at least one new drug offence compared to 51 percent of those who had terminated and 47 percent of those in the prisoner comparison group.

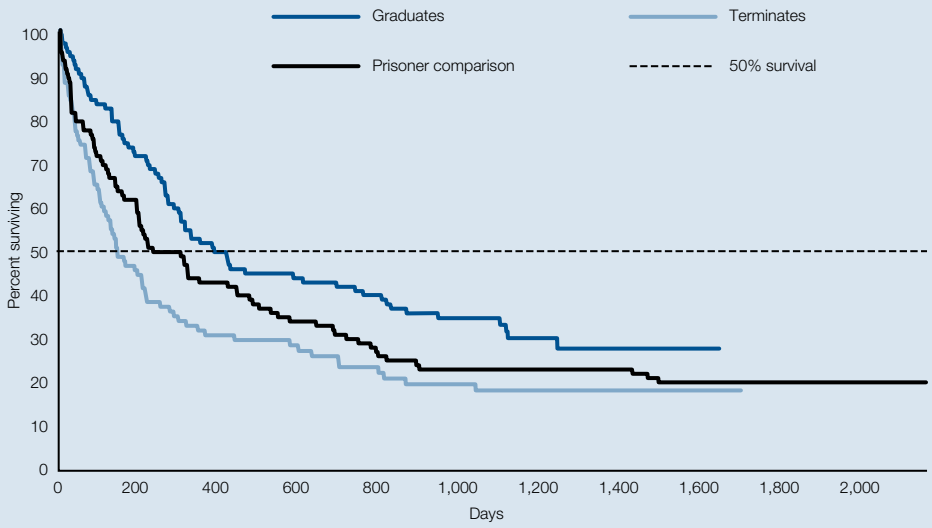
As in the previous section, survival analysis is used as the preferred method for calculating recidivism rates. Through this analysis it is possible to map the incidence of reoffending over time and control for differences in the amount of time each offender was observed. Observation times vary in this study because while all observations end at 2 June 2006, not all offenders graduated or were released from prison on the same day. Moreover, since reoffending in this study is calculated as a function of the time an offender was 'free and able' to reoffend, those who spent some time in prison will have comparatively reduced observation periods.

The results of the survival analysis are presented in Figures 3.7 to 3.11 and are summarised in Table 3.8. The first figure shows the survival curves for the time to first offence, regardless of the offence type. It illustrates that at all time points, fewer graduates had returned to offending than terminates and the prisoner comparison group. The median survival time, or number of days for 50 percent of each sample to reoffend, was 379 for graduates, 139 for terminates and 219 for the prisoner comparison group. Overall survival function was statistically significant, however between graduates and the prisoner comparison group only the Wilcoxon statistic was significant (X^2=4.64, df=1, p=.0313). This suggests that while the overall probability of recidivism was not different between graduates and prisoners, graduates were significantly less likely to return to offending as quickly as prisoners.

Figures 3.8, 3.9 and 3.10 provide post-finalisation survival curves for the property, drug and any offence categories, excluding breach-only offence episodes. The results indicate that after leaving the drug court program, and when compared to prisoners on their release:

- Graduates were significantly less likely to commit new property offences, and of those who did, the time taken to return to offending was longer. There was no difference between terminates and prisoners, of whom similar proportions returned, within similar timeframes, to commit new property offences.
- There was no difference between graduates and the prisoner comparison group in the number of offenders or the number of days taken to return to drug offending.
- Excluding the possible bias of breach-related offending episodes, fewer graduates returned to offending and if they did, took longer on average to do so. This result is significant. There were no differences between terminates and prisoners.

Figure 3.7: Survival analysis for free days to first offence episode after finalisation

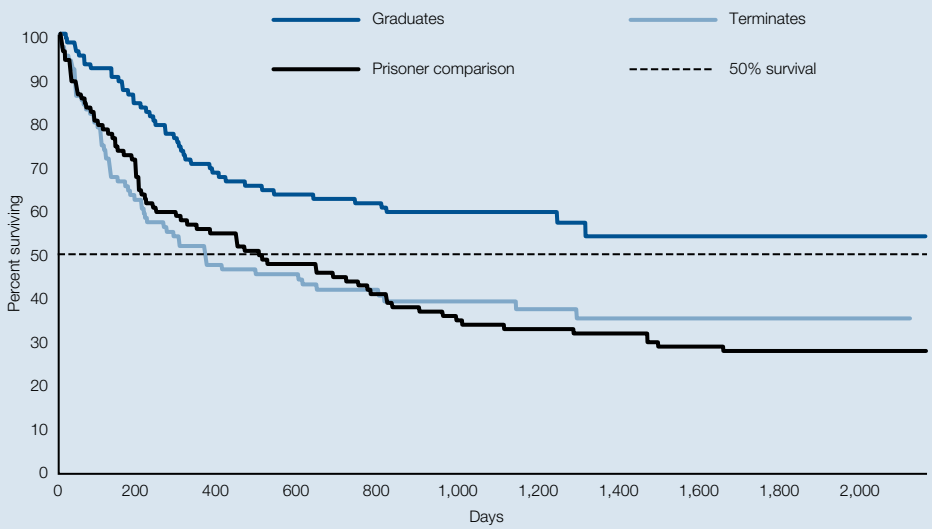


Log-rank test of equality: Total (X^2=10.77, df=2, p=.0046), Graduates vs prisoners (X^2=3.31, df=1, p=.0688)

Wilcoxon statistic: Total (X^2=15.36, df=2, p=.0005), Graduates vs prisoners (X^2=4.64, df=1, p=.0313)

Source: AIC, Queensland drug court database [computer file]

Figure 3.8: Survival analysis for free days to first property offence episode after finalisation

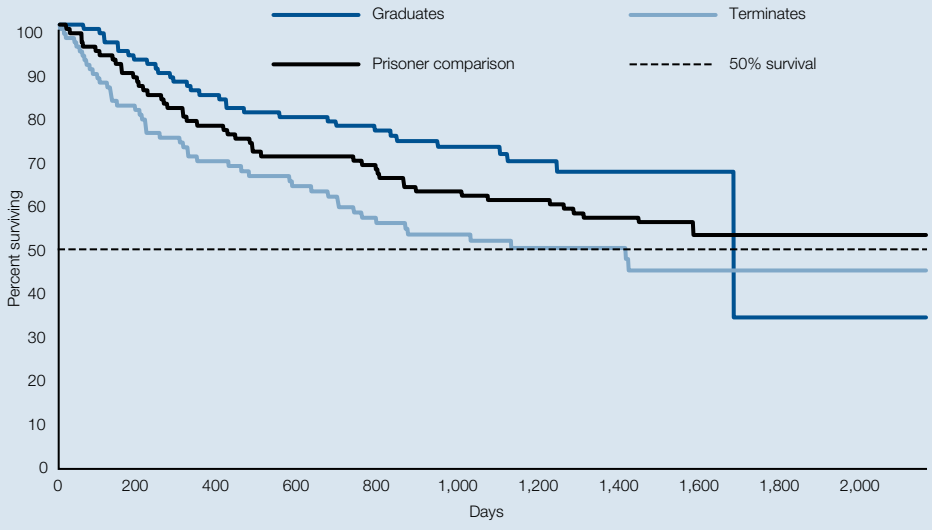


Log-rank test of equality: Total (X^2=15.08, df=2, p=.0005), Graduates vs prisoners (X^2=12.90, df=1, p=.0003)

Wilcoxon statistic: Total (X^2=15.84, df=2, p=.0004), Graduates vs prisoners (X^2=12.53, df=1, p=.0004)

Source: AIC, Queensland drug court database [computer file]

Figure 3.9: Survival analysis for free days to first drug offence episode after finalisation

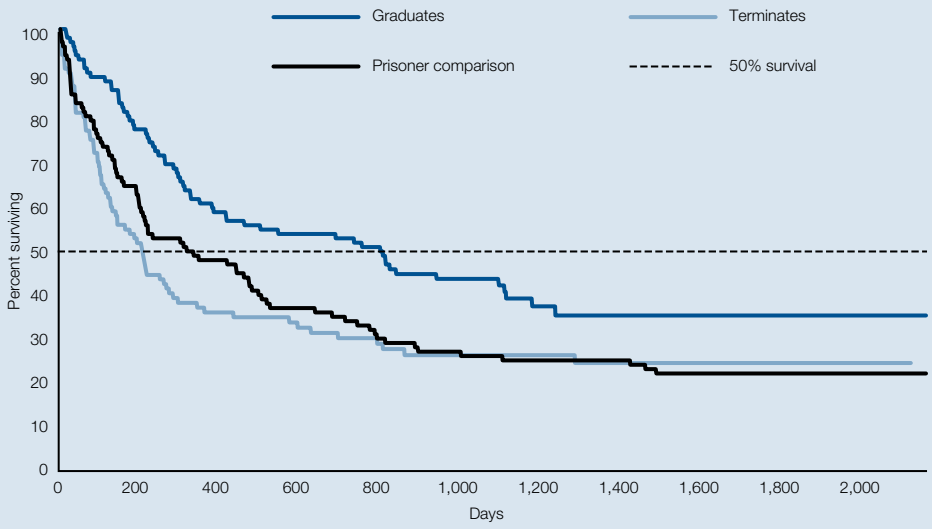


Log-rank test of equality: Total (X^2=8.57, df=2, p=.0138), Graduates vs prisoners (X^2=2.21, df=1, p=.137)

Wilcoxon statistic: Total (X^2=9.93, df=2, p=.007), Graduates vs prisoners (X^2=2.74, df=1, p=.098)

Source: AIC, Queensland drug court database [computer file]

Figure 3.10: Survival analysis for free days to first offence episode (not including breach-only offence episodes) after finalisation



Log-rank test of equality: Total (X^2=11.68, df=2, p=.0029), Graduates vs prisoners (X^2=7.07, df=1, p=.0078)

Wilcoxon statistic: Total (X^2= 17.14, df=2, p=.0002), Graduates vs prisoners (X^2=9.18, df=1, p=.0024)

Source: AIC, Queensland drug court database [computer file]

Table 3.8: Summary of post-finalisation survival analysis

	Graduated (n=100)	Terminated (n=100)	Prisoner comparison (n=107)
Any offence			
Percent reoffended within six months	27	54	39
Percent reoffended within 12 months	49	70	58
Percent reoffended within 24 months	59	77	71
Percent reoffended by 2 June 2006	70	82	80
Days to 50 percent survival	379	139	219
Property offence			
Percent reoffended within six months	14	37	29
Percent reoffended within 12 months	30	52	45
Percent reoffended within 24 months	38	59	57
Percent reoffended by 2 June 2006	43	63	72
Days to 50 percent survival	n.a.	359	459
Drug offence			
Percent reoffended within six months	7	18	12
Percent reoffended within 12 months	16	31	23
Percent reoffended within 24 months	23	42	30
Percent reoffended by 2 June 2006	31	51	47
Days to 50 percent survival	n.a.	1,107	n.a.
Any offence (excluding breach-only offences)			
Percent reoffended within six months	21	47	36
Percent reoffended within 12 months	40	65	54
Percent reoffended within 24 months	48	71	67
Percent reoffended by 2 June 2006	62	75	79
Days to 50 percent survival	754	192	308

n.a. Not applicable

Source: AIC, Queensland drug court database [computer file]

Overall, with the exception of drug offending, it appears that fewer graduates had reoffended before 2 June 2006 and of those who did, the time taken to reoffend was generally longer than for terminates or prisoners. Terminates on the other hand were generally the same as (or not significantly different from) the prisoner comparison group. Since the prisoner comparison group was selected as the comparative intervention – that is, what participants would have been subject to in the absence of the drug court – these data suggest that the drug court experience served to reduce the probability of recidivism among those who successfully completed their IDRO, but had no effect in reducing the probability of reoffending among those who were unsuccessful.

As in the previous section, a multi-level analysis for change is employed as a method for examining the frequency of pre and post-drug court offending. A multi-level analysis estimates a pre and post-intervention offence rate for each of the three groups. It excludes the intervention period, which for graduates and terminates was the time spent on their IDRO. For the prisoner comparison group, the intervention was measured as the time they spent in prison. In essence, the analysis examines the rate at which each group commits new offence episodes after their respective interventions, and compares that with their offending rate in the 12 months prior to the intervention. The previous section demonstrated that the graduates' and terminates' rates of offending significantly decreased while in the drug court program. This section examines whether the same can be said for the period after their graduation or termination.

Table 3.9 presents the model parameters and estimated offence rates for each group. Unlike the previous section, where graduates were compared to terminates, in this analysis both graduates and terminates are compared to the prisoner comparison group. This means that parameter estimates for graduates' pre and post-IDRO offending are additional to the baseline growth rates estimated for the prisoner comparison group. The p-values represent the extent to which the parameter estimates are significantly different from zero, while a summary of the significance tests on the linear combination of additional parameters is provided in Table 3.10.

Beginning with prisoners, the multi-level model estimates the offending rate (for any offence) at 0.61 offence episodes every month in the 12 months prior to their imprisonment. This is equivalent to 3.66 offences every six months. After their imprisonment, the group's average offending rate declined by 0.38 offence episodes each month. In the period after their imprisonment, the prisoner comparison group committed an average of 0.23 offence episodes each month or 1.39 episodes every six months. Interestingly, the prisoners' post-release rate of offending was lower than in the 12 months prior to their imprisonment – declining by around 62 percent.

Graduates' rate of offending in the 12 months prior to their IDRO was estimated at 0.50 offence episodes each month or 3.00 offence episodes every six months. This was 0.11 offence episodes lower than the prisoner comparison group's rate of offending and 0.12 offence episodes lower than the terminates' rate of offending. After graduating from the drug court program, graduates' offending declined by around 80 percent compared to the 12 months prior to their participation. Their offence rate in the post-graduation period is estimated at 0.10 offence episodes each month or 0.61 offence episodes every six months.

There is no difference between the estimated average offence rates of terminates and the prisoner comparison group (0.62 and 0.61 offences every month, respectively). After terminating and completing their post-termination imprisonment order (as a result of the suspended sentence being invoked), the terminates' rate of offending declined to

0.23 offence episodes each month. Again, this was very similar to the average post-release rate of offending estimated for prisoners. Overall, terminates' offending declined by approximately 63 percent when compared with their offending in the 12 months prior to their placement in the drug court program.

It is important to note that in this model, the graduates' and terminates' 12-month pre-IDRO offending rate is slightly higher than when estimated using a similar model in the previous section. The reason for this is that the offence rates are estimated through a statistical process based on deviations from the total sample's grand mean. This means that the statistical model presents the parameter estimates that best represent the complete and available data. Since in this model the prisoner comparison group is included and used as the baseline comparison, it is not unexpected that the estimated offending rates will vary slightly.

Figure 3.11 illustrates the growth rates for each group in the 12 months prior to the intervention and 20 months after the intervention. The graph shows the obvious difference in the rate of offending among graduates, terminates and prisoners in the 12 months prior to their respective interventions. The graph also shows that offending declines for all groups in the post-intervention period. That is, prisoners and terminates committed fewer offences after their release from prison than in the 12 months before their imprisonment. Similarly, graduates committed fewer offences after graduating from the drug court program than in the 12 months before their placement.

Although the evidence suggests that both the drug court graduates and terminates commit fewer offences after their graduation or termination, the fact that prisoners in the comparison group also committed fewer offences complicates this conclusion. The purpose of the drug court program is to provide an alternative sentencing option that effectively diverts offenders away from prison and into services aimed at addressing their drug dependency. Although many other benefits are likely to be achieved as a result of this process, of particular importance to this evaluation is whether, on balance, it is likely that the drug court produced greater reductions in offending than imprisonment. In other words, was the intensive nature of the drug rehabilitation order more successful than the alternative of imprisonment in reducing reoffending?

There are two ways to answer this question. The first is to determine whether graduates and terminates of the drug court program had lower rates of post-intervention offending than their prisoner counterparts. The second, taking into account the already demonstrated differences in pre-intervention offending, is to determine whether the relative percentage decline in offending was greater among those who entered the drug court versus those who were imprisoned. Both of these questions can be answered using statistical tests performed on linear combinations of the parameter values. Table 3.10 summarises the results of these tests which show that:

- not only did the drug court graduates commit fewer offences in the 12 months prior to their drug court order than did the prisoners in the 12 months prior to their imprisonment, but they also committed significantly fewer offences after their graduation than the prisoners after their release
- graduates' offending declined by 80 percent in the post-graduation period. This compared to the prisoner comparison group, whose relative offending declined by 62 percent. The 18 percent difference was statistically significant, suggesting that although graduates started out with a lower rate of offending, the percentage by which their offending rate declined was higher than the prisoner comparison group
- there was no difference between terminates and prisoners in their pre or post-intervention offending rates. Moreover, the post-intervention decline in offending was almost identical between the groups (63% and 62%, respectively)
- since terminates do not significantly differ from prisoners, the differences between graduates and prisoners also hold for comparisons between graduates and terminates.

Table 3.9: Multi-level analysis of change in offending (including breach offending) before and after drug court participation

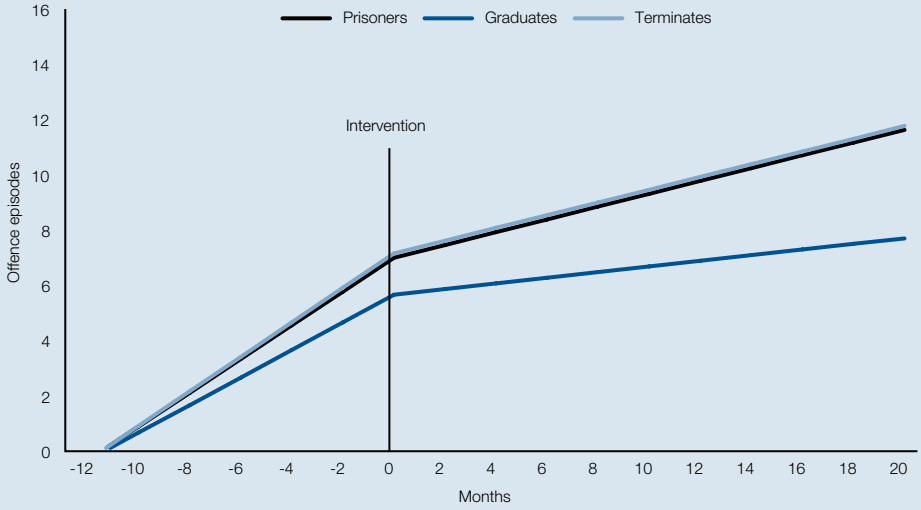
	Parameter	p	Actual estimated offending rate (per month)	Actual estimated offending rate (per six months)	Estimated change in offending	Percent change in offending (versus pre-commencement)
Prisoner pre-imprisonment growth	0.61	0.00	0.61	3.66	–	–
Prisoner post-release change	–0.38	0.00	0.23	1.39	–2.27	–62.1
Graduate pre-IDRO growth	–0.11	0.01	0.50	3.00	–	–
Graduate post-graduation change	–0.02	0.34	0.10	0.61	–2.38	–79.6
Terminate pre-IDRO growth	0.01	0.74	0.62	3.74	–	–
Terminate IDRO change	–0.01	0.46	0.23	1.38	–2.36	–63.1

Variance components: Within person (3.16, p=.00), Initial status (8.47, p=.00), Rate of change (0.09, p=.00), Covariance (–0.31), Deviance (45264.03)

– Not applicable

Source: AIC, Queensland drug court database [computer file]

Figure 3.11: Multi-level analysis of change in offending (including breach offending) before and after drug court participation



Variance components: Within person (3.16, p=.00), Initial status (8.47, p=.00), Rate of change (0.09, p=.00), Covariance (–0.31), Deviance (45264.03)

Source: AIC, Queensland drug court database [computer file]

Table 3.10: Summary statistical tests of change in offending (including breach offending) after drug court participation

	Estimate	Significantly different from zero	Significantly different from prisoners	Significantly different from terminates
Prisoner pre-imprisonment growth (six months)	3.66	–	–	–
Prisoner post-release growth (six months)	1.39	–	–	–
Percent decline in prisoner offending	–62.10	**	–	–
Graduate pre-IDRO growth (six months)	3.00	–	**	**
Graduate post-graduation growth (six months)	0.61	–	**	**
Percent decline in graduate offending	–79.60	**	**	**
Terminate pre-IDRO growth (six months)	3.74	–	n.s.	–
Terminate IDRO growth (six months)	1.38	–	n.s.	–
Percent decline in terminate offending	–63.10	**	n.s.	–

Variance components: Within person (3.16, p=.00), Initial status (8.47, p=.00), Rate of change (0.09, p=.00), Covariance (–0.31), Deviance (45264.03)

** Statistically significant

n.s. Not significant

– Not applicable

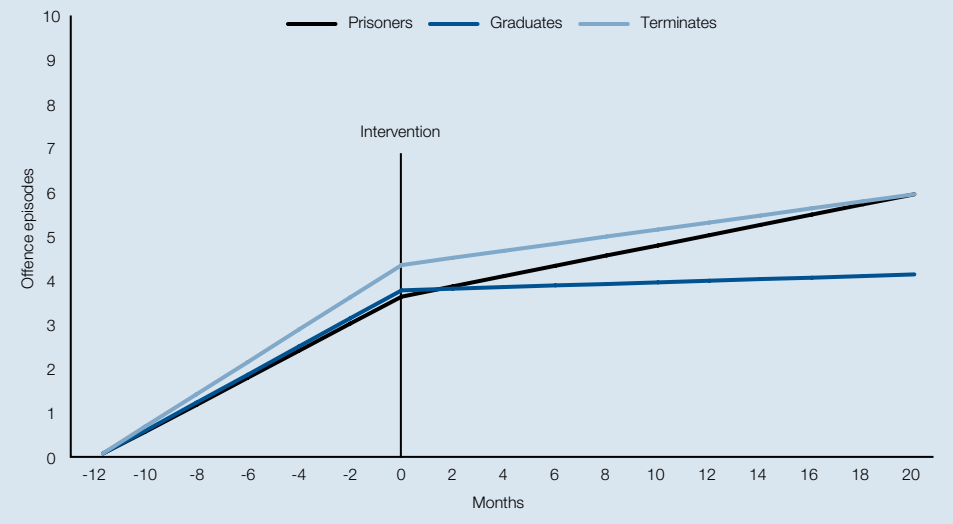
Source: AIC, Queensland drug court database [computer file]

Using the same multi-level analysis technique, it is possible to examine changes in property and drug offending as two discrete offending types. Figures 3.12 and 3.13 present a graphical depiction of each multi-level model's estimated parameter values and offending trajectories, while Tables 3.11 and 3.12 provide a summary of the linear parameter combinations and the outcomes of the significance tests. For property offending the results suggest that:

- graduates and the prisoner comparison group were almost identical in the frequency at which they committed property offences in the 12 months preceding their respective interventions (1.91 and 1.84 offence episodes every six months, respectively)
- terminates had a higher rate of property offending than both graduates and the prisoner comparison group (2.2 offence episodes every six months)

- after graduating, the graduates' rate of property offending declined by 94 percent to 0.11 offence episodes every six months. This decline was significantly higher than for the prisoners (62%) and terminates (78%)
- after terminating, the actual number of offences committed each month by terminates was not significantly different from prisoners, however, the percentage decline was significantly greater for terminates.

Figure 3.12: Multi-level analysis of change in property offending after drug court participation



Variance components: Within person (1.37, p=.00), Initial status (3.52, p=.00), Rate of change (0.03, p=.00), Covariance (–0.06), Deviance (36327.57)

Source: AIC, Queensland drug court database [computer file]

Table 3.11: Summary statistical tests of change in property offending after drug court participation

	Estimate	Significantly different from zero	Significantly different from prisoners	Significantly different from terminates
Prisoner pre-imprisonment growth (six months)	1.84	–	–	–
Prisoner post-release growth (six months)	0.70	–	–	–
Percent decline in prisoner offending	–62.20	**	–	–
Graduate pre-IDRO growth (six months)	1.91	–	n.s.	n.s.
Graduate post-graduation growth (six months)	0.11	–	**	**
Percent decline in graduate offending	–94.40	**	**	**
Terminate pre-IDRO growth (six months)	2.20	–	**	–
Terminate IDRO growth (six months)	0.48	–	n.s.	–
Percent decline in terminate offending	–78.10	**	**	–

Variance components: Within person (1.37, p=.00), Initial status (3.52, p=.00), Rate of change (0.03, p=.00), Covariance (–0.06), Deviance (36327.57)

** Statistically significant

n.s. Not significant

– Not applicable

Source: AIC, Queensland drug court database [computer file]

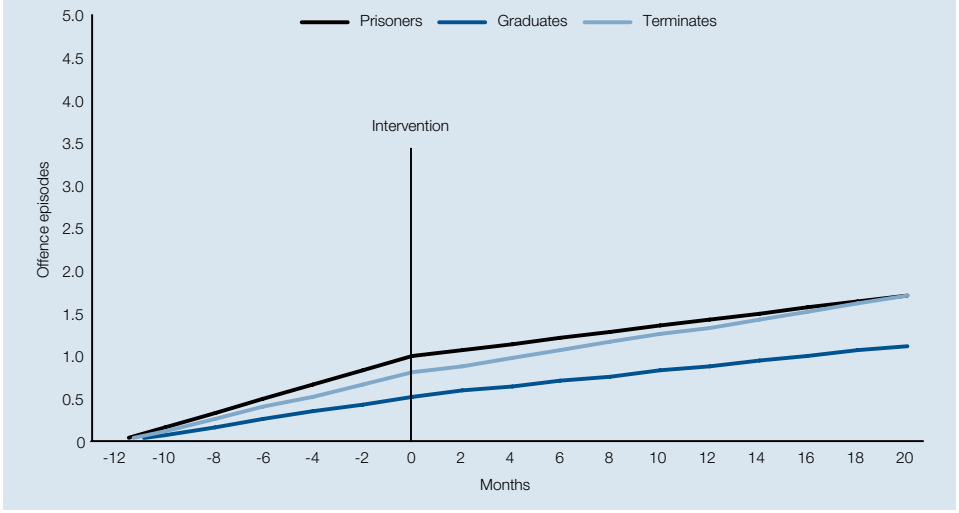
In terms of drug offending, the results indicate that:

- graduates committed significantly fewer drug offences in the 12 months prior to their drug court order than did prisoners in the 12 months prior to their incarceration
- after graduating, the graduates' rate of drug offending declined (relative to the 12 months prior to their IDRO) by 32 percent. This was significantly lower than the percentage decline experienced by the prisoner comparison group (57%), but not different from the terminates' (33%)
- at no point were terminates different from the prisoner comparison group, with similar pre-intervention and post-intervention offending rates.

Although these data suggest that prisoners experienced a greater reduction in their drug offending than graduates of the drug court program, this result should be interpreted with some caution. The actual rates of offending in all cases, both pre and post-intervention, were very low. Prisoners, who had the highest pre-intervention offending rate, still only committed one offence, on average, in the 12 months preceding their imprisonment. Graduates committed even fewer offences. Given that pre-intervention drug offending rates were extremely low across all three groups, the extent to which changes will be identified in the post-intervention period is limited. Even though the prisoner comparison group experienced a relative decline of 57 percent in their drug offending, it was still higher in the post-intervention period than the graduates' (0.21 and 0.18 offence episodes every six months, respectively).

Moreover, drug offending itself should not be used as a comparative yard stick for measuring the extent of drug use among each of the three groups. The frequency at which each group was convicted of a drug offence is unlikely to be a useful indicator of their level of drug use. Although those convicted of a drug offence are very likely to be using drugs or otherwise involved in a drug market, the opposite statement – that not being convicted of a drug offence is a reliable indicator of drug abstinence – cannot be claimed with any certainty. The mere fact that graduates and terminates of the drug court program were convicted of less than one offence, on average, in the 12 months preceding their drug court order suggests that for an otherwise drug-dependent population, drug convictions are a poor measure of drug use that fail to differentiate among different drug users.

Figure 3.13: Multi-level analysis of change in drug offending after drug court participation



Variance components: Within person (0.15, p=.00), Initial status (0.45, p=.00), Rate of change (0.004, p=.00), Covariance (–0.02), Deviance (12759.79)

Source: AIC, Queensland drug court database [computer file]

Table 3.12: Summary statistical tests of change in drug offending after drug court participation

	Estimate	Significantly different from zero	Significantly different from prisoners	Significantly different from terminates
Prisoner pre-imprisonment growth (six months)	0.50	–	–	–
Prisoner post-release growth (six months)	0.21	–	–	–
Percent decline in prisoner offending	–57.40	**	–	–
Graduate pre-IDRO growth (six months)	0.27	–	**	**
Graduate post-graduation growth (six months)	0.18	–	n.s.	n.s.
Percent decline in graduate offending	–31.70	**	**	n.s.
Terminate pre-IDRO growth (six months)	0.41	–	n.s.	–
Terminate IDRO growth (six months)	0.27	–	n.s.	–
Percent decline in terminate offending	–32.80	**	n.s.	–

Variance components: Within person (0.15, p=.00), Initial status (0.45, p=.00), Rate of change (0.004, p=.00), Covariance (–0.02), Deviance (12759.79)

** Statistically significant

n.s Not significant

– Not applicable

Source: AIC, Queensland drug court database [computer file]

Conclusion

The extent to which the drug court program reduces the criminal activity of those involved is used as a measure of its effectiveness. Criminal conviction data were used to measure the offending profiles of two drug court samples – the first 100 graduates and the first 100 terminates. Two primary statistical methods were used to measure the prevalence and frequency of their recidivism – survival analysis and multi-level growth modelling. The analysis was divided into two sections. The first examined each group's offending profile for the duration of their participation in the drug court program. The results showed that for the first 100 graduates of the Queensland drug court program nearly all were reconvicted at

least once while in the program. At 18 months, one in three graduates had been convicted of a property offence and six percent had been convicted of a drug offence. The average number of days to first offence was 288.

Most graduates were reconvicted of at least one new offence while in the drug court program, however, the multi-level analysis demonstrated significant reductions in the overall frequency of offending when compared to the 12 months prior. Overall, when all offence categories are included, graduates experienced a relative decline of 86 percent in their offending – dropping from a six-month average of 2.9 offences before, to 0.4 offences after, being placed in the drug court program. These reductions were even higher when measured independently among the property (94%) and drug offence (89%) categories.

The first 100 terminates of the drug court program also demonstrated significant reductions in their overall offending while in the drug court program. While nearly 100 percent had reoffended at least once, their overall offending declined from 3.6 to 2.1 offences every six months. This is equivalent to a 42 percent reduction in offending while in the drug court program. Across the offence types, the relative reductions were 54 percent in property offending and 72 percent in drug offending.

The overall data suggest that both drug court graduates and terminates commit significantly fewer offences while participating in the drug court program than in the 12 months before. The reductions were not as great for terminates, however, whose continued non-compliance resulted in their eventual termination.

The second section examined what happened (in terms of offending) to graduates and terminates after they left the drug court program. For graduates, this was after their graduation. For terminates, it was the period after their release from their post-termination imprisonment. Overall, the results suggest that:

- 59 percent of graduates had been reconvicted of a new offence within two years of their graduation. The first post-graduation offence occurred after an average of 379 days
- 77 percent of terminates had been reconvicted within two years of their release from prison. The average time to first offence was 139 days
- graduates committed an average of 0.61 offences every six months after their graduation, down by 80 percent when compared to the 12 months prior to their entry into the drug court program
- terminates committed an average of 1.38 offences every six months after being released from prison – 63 percent lower than their rate of offending in the 12 months prior to drug court participation.

A prisoner comparison group was identified as a quasi-control with the purpose of providing relative baseline reoffending estimates against which the graduates' and terminates' post-participation offending could be compared. The prisoners were identified as being comparable to the drug court participants across a range of demographic and offending characteristics and represented, as closely as possible, what would have happened to participants had the drug court not been available. Comparing the post-intervention (drug court or imprisonment) offending outcomes of each group provides information about the extent to which the drug court may have been more or less effective in reducing crime. The results of the comparisons demonstrate that:

- graduates of the drug court program committed fewer offences after their graduation than did prisoners or terminates after their release from prison
- the percentage decline (relative to their pre-intervention offending rates) was higher among graduates then either prisoners or terminates
- drug offending was the only category where graduates did not experience as large a reduction in their offending as prisoners, however, graduates' actual drug offending rate was lower than the prisoners' in the pre and post-intervention periods
- there were few differences between terminates and the prisoner comparison group. In almost all cases, terminates and prisoners had similar rates of offending and similar percentage declines. The only significant finding was that the terminates' property offending declined by a significantly larger amount than did the prisoners', although their actual offending rates were not significantly different.

4 Predicting termination

The previous chapter highlighted that terminates of the drug court program were more likely to reoffend, and at a higher frequency, than graduates of the program. This was generally the case both during and after their IDRO, and is consistent with evaluations of drug courts in other Australian jurisdictions. This result is not surprising, given that to be terminated from the drug court program an offender needed to have demonstrated a high degree of non-compliance or a personal desire to withdraw from the program. Regardless, minimising the number of offenders terminating from the drug court program may be identified as a key goal for future policy development. To do this, it is necessary to understand what factors, if any, differentiate graduates and terminates of the drug court program.

Chapter 2 provided information about the general differences between graduates and terminates. However, this analysis was undertaken at the bivariate level, and failed to account for the possible multi-variate nature of the data. That is, while the bivariate analysis suggested that graduates were more likely than terminates to have been employed and living in a married or de facto relationship at the time of referral, it is impossible to tell which of these factors is more powerful in differentiating between the two groups. Is it the influence of having stable ties to the wider community through employment or the support offered at home by a partner that assists the drug treatment process? It is only through a multi-variate analysis, where the confounding effect of other factors is controlled, that questions about the differential effect of separate factors may be answered.

In this chapter, a logistic regression model is employed to predict termination. The factors chosen in the model are those identifiable by the drug court team at the time of referral and assessment. Program participation factors, such as the number of times an offender absconds during phase 1 are excluded because of their relatively high correlation with the outcome being predicted. In other words, since termination occurs as a result of non-compliance, including measures of non-compliance would produce spurious results. Another benefit of including only those factors available at the time of referral and assessment is they can be used to identify offenders at greater risk from the outset of terminating – offenders who may be identified as needing additional assistance and supervision during the early stages of their participation.

Table 4.1 presents the results of the logistic regression analysis. The parameter coefficients and odds ratios are used to determine the direction and strength of each factor. For factors with just two possible categories, such as male, the odds ratio is interpreted as the comparative odds that males will terminate when compared to females. For continuous variables, such as an offender's age at the time of his or her referral, the odds ratio is interpreted as the comparative odds of terminating between two offenders whose age differs by only one year. The p-value indicates whether a factor, controlling for all others in the model, is significant. A significant factor is one where the chance of being incorrect is less than five percent ($p<.05$).

Five groups of factors are included in the final model, including demographic, socio-demographic, criminal offending and drug use factors. The last group includes two regional interactions. These were included because earlier iterations of the model indicated significant differences between the regions and suggested that not every factor equally predicted termination in North Queensland as it did in the South East, or vice versa. Regional interactions were performed with each variable, but only two were needed to account for a significant proportion of the regional differences. These two interactions were retained.

Table 4.1: Logistic regression predicting termination

	Parameter	Odds ratio	p-value
Demographics			
Male	0.63	1.88	0.03
Aboriginal or Torres Strait Islander	0.02	1.02	0.95
Age at referral (mean centred)	0.00	1.00	0.96
Region	0.00	1.00	0.91
Socio-demographics			
Unemployed	0.38	1.46	0.16
Cohabits with partner	–0.16	0.85	0.56
Partner uses drugs	–0.35	0.70	0.25
Dependent children	–0.01	0.99	0.88
Cohabits with children	–0.66	0.52	0.03
Criminal offending			
Violent charges	–0.35	0.70	0.05
Property charges	0.01	1.01	0.67
Drug charges	–0.10	0.90	0.25
Breach charges	0.30	1.35	0.02
Initial sentence (years)	–0.13	0.88	0.01
Drug use			
Recent cannabis user	–0.30	0.74	0.17
Recent amphetamine user	0.13	1.14	0.57
Recent opiate user	0.83	2.30	0.00
Recent user of other drugs	–0.06	0.95	0.83
Age at first drug use (mean centred)	–0.03	0.98	0.35
Prior treatment	0.17	1.19	0.43
Regional interactions			
Age at referral (in North Queensland)	–0.10	0.91	0.00
Partner uses drugs (in North Queensland)	1.92	6.82	0.00

Table 4.1: continued

	Parameter	Odds ratio	p-value
Constant	–0.07	0.93	0.89
Model statistics			
n	584		
Log likelihood	–322.91		
Chi square (22)	80.39		
p	0.00		
Pseudo R^2	0.11		

Source: AIC, Queensland drug court database [computer file]

Of the three demographic variables included in the model, gender and age were the only two significant predictors of termination. After controlling for the confounding effects of all other variables, males were 88 percent (or=1.88, p=.03) more likely than females to terminate from the drug court program. Indigenous offenders were not more nor less likely than non-Indigenous offenders to terminate after all other factors were controlled.

An offender's age at the time of his or her referral was not an important factor in South East Queensland, however, the regional interaction suggests that age was important in predicting termination in North Queensland. Having a negative parameter (b=–0.10) and an odds ratio less than one, the result indicates that older participants in North Queensland were at a lower risk of terminating than their younger counterparts. Age in this model is mean centred, which indicates that both the parameter and odds ratio are interpreted as the effect of a one-year difference in age away from the mean of the entire sample (which was 29 years). In other words, participants in North Queensland who were 30 years of age (one year above 29) were around 10 percent less likely to terminate than those of average age. For each year thereafter, the odds decrease by a further 10 percent per annum. Alternatively, the odds of terminating for a participant younger than the mean *increases* by 10 percent for each year that they were below 29.

Since age is not significant in South East Queensland, but is significant in the North, this also suggests that two offenders of the same age in each region have different probabilities of terminating from the drug court program. Older participants (above the group mean) in the North are at lower risk of terminating than participants of the same age in the South East. However, younger participants in the North are at greater risk of terminating than younger offenders of the same age in the South East.

Five socio-demographic factors were included in the model to test whether being unemployed, living with a partner, having a drug-using partner, having dependent children and/or living with children were linked to termination. Of the five factors, two emerged as

important independent predictors. The first, which was consistent across both the North and South East Queensland drug court programs, was whether the participant cohabited with children. Interestingly, simply having dependent children was not a significant factor and further analysis revealed that while more than half of the entire sample reported having one or more dependent children, only one-third of those who did were living with those children at the time of their referral. Simply having dependent children provided no protective effect against terminating, but living with children did. The odds of terminating were almost 50 percent lower for those living with children than those who did not.

The second socio-demographic factor was important only in North Queensland and indicated that those participants with a partner who also used drugs were around five times more likely to terminate than those without a partner or those with a partner who did not use drugs. In South East Queensland, this effect was not evident, although a smaller percentage of participants in the South East were living with a drug-using partner at the time of their referral.

Although 85 percent of drug court participants were unemployed at the time of referral to the drug court program, being employed was not a significant independent protective factor. Although failing to reach conventional levels of significance, it is interesting to note the direction of the parameter value, which suggest that employment had an effect in reducing the risk of termination.

Criminal offending was measured using information from the drug court database on the number and type of offences for which each participant was referred to the drug court. This information was used in the absence of more detailed criminal history data that were not collected for all 584 offenders in this sample. The results suggest some interesting findings, namely that those participants referred with at least one violent charge were less likely to terminate from the drug court program. Breach offending on the other hand, was linked to a significant increase in the probability of terminating, while property and drug offending, for which the majority of offenders were referred, had no impact. Breach offending provides an indication of the extent to which each participant has recently failed to comply with a criminal justice sanction or order. This includes failing to comply with the terms of bail, a probation order or suspended sentence. Being referred to the drug court for charges of non-compliance with orders previously imposed by the courts significantly increases the odds of terminating by 65 percent and is a clear marker for non-compliance.

In addition to a participant's charges, one other criminal justice factor emerged as an important predictor of termination – the initial sentence. The initial sentence is the suspended term of imprisonment handed down by the magistrate as a part of issuing the IDRO. The suspended sentence is intended to reflect the length of the prison sentence the participant would have received had he or she not been admitted to the drug court program. The initial suspended sentence is also that which is reviewed by the drug court magistrate at the time of graduation/termination. In this model, the length of the suspended prison

sentence was significantly linked to termination – participants with shorter initial sentences were more likely to terminate than those with longer initial sentences. There are a few possible explanations for this effect. First, longer initial sentences may reflect the graded nature of criminal justice sanctioning, whereby more prolific offenders received, for each successive appearance in court, a more severe or lengthy prison sentence. Perhaps those with longer initial sentences are those closer to the end of their criminal career and see the drug court order as a viable life-changing alternative to criminality. The alternative and more popular explanation is that the initial sentence typically acts to motivate the participant into complying with the drug court order. The longer the initial sentence, the more one has to lose by terminating. Offenders with shorter initial sentences may fail to see their potential imprisonment as a sufficient motivation for continuing with their drug court order.

The final set of factors measured a participant's recent drug use history. Recent drug use is positively coded for participants who had used each of the different drug types in the six months preceding their drug court order. This information is obtained at the time of the drug use assessment. Interestingly, after controlling for all other factors participants who had recently used opiates were more than twice as likely to terminate from the drug court program than those who had not used opiates (or=2.30, p=.00). Moreover, earlier iterations of this model indicated that the predictive power of opiates was not different between North and South East Queensland. Opiate-using participants in both regions were more likely than non-opiate using participants to terminate. Neither cannabis nor amphetamines had a significant effect, although this is not a surprising result since the vast majority of participants, both terminates and graduates, were either cannabis or amphetamine users.

Age of initiation is measured on a continuous scale and indicates the age at which each participant reported having first used illicit drugs. Like the variable for age at referral, age of initiation is mean centred, but not significant in this model. This suggests that after taking account of other demographic, offending and drug use factors, the age at which an offender first commences using drugs is not independently predictive of termination.

Finally, participants were asked to nominate whether, before being referred to the drug court program, they had participated in any form of treatment for their drug addiction. More than half of all participants in the South East had done so, while this was the case for only six percent of participants in the North. Despite the relatively high prevalence of prior treatment in the South East, having previously undertaken treatment did not serve as a significant protective factor against termination.

5 Summary and conclusion

Since 1999, with the establishment of Australia's first drug court in New South Wales, drug courts have become an important feature of Australia's criminal justice landscape. They provide an important and innovative treatment alternative for dealing with drug-related crime. In Queensland, five such courts operate across the state – two in the North (Cairns and Townsville) and three in the South East (Ipswich, Beenleigh and Southport).

Chapters 1 and 2 of this report provided a brief description of the drug court program and the offenders referred to it. It illustrated that in the six years since its inception:

- 1,361 offenders have been referred to the program (998 in South East Queensland and 363 in North Queensland)
- 758 offenders had been accepted into the program
- 183 offenders had successfully completed the program and graduated.

Of the 758 offenders issued with an IDRO, the majority were male (86%), married or living in a de facto relationship (82%), non-Indigenous (90%) and aged 29 years on average. They reported their health as generally good or very good. Nearly half reported having hepatitis C, while seven percent reported having had suicidal thoughts and 13 percent reported having previously engaged in self-harm. In terms of drug use, cannabis and amphetamines were the two drug types most frequently cited as having been used in the six months before referral, although more than half reported having also used opiates during that time. Poly-drug use was common among drug court participants, although they were not always assessed as dependent on each of the drug types they reported using. Almost all offenders referred to the drug court were facing one or more property charges (93%), while half (51%) were facing drug charges. In all, offenders were facing an average of around eight charges at the time of their referral.

In terms of program operation, the drug court is a three-phase intervention requiring participation in a detoxification, residential or non-residential treatment program. Offenders must attend regular court hearings (weekly in phase 1) and submit to random urinalysis testing. The program is designed as a minimum nine-month intervention with both attendance and compliance monitoring requirements that decrease in recognition of positive performance and continued compliance. Non-compliance is sanctioned by the drug court magistrate, compliance is rewarded, and continued non-compliance can result in termination. Terminated participants are returned to the normal criminal justice process, which typically requires some degree of imprisonment. As at 2 June 2006:

- a total of 183 graduates completed the drug court program in an average of 463 days; 402 offenders had terminated after an average of 283 active days of participation
- more than half of all participants had absconded at least once while in the drug court program. The average number of days it took for a participant in phase 1 to abscond was 28, and the average time spent at large was 20 days

- a total of 23,536 court appearances had been conducted as at 2 June 2006. The majority were for the standard IDRO court review, while a smaller proportion (n=2,934) were indicated as special mention appearances
- a total of 45,365 urinalysis tests had been completed, nine percent of which were positive. Cannabis was the drug most frequently identified followed by benzodiazepines
- the most frequently used sanction for non-compliance was imprisonment, followed by community service. Rewards were awarded just as often as sanctions in phase 1, but more often in phases 2 and 3.

Chapter 3 of this report examined the recidivism outcomes of the first 100 graduates for no less than two years after their graduation. The analysis examined their offending before, during and after their drug court experience. Comparing these results to those of the first 100 terminates and 107 prisoners identified as a comparison group, this report finds that the criminal activity of both graduates and terminates declines significantly while they participate in the drug court program. These reductions in offending are greatest for graduates, dropping from a six-month average of 2.9 offences before the drug court to 0.4 offences while in the drug court program. These reductions were even higher when measured independently among the property (down 94%) and drug offence (down 89%) categories. Although those who terminate offend more frequently than those who graduate, their offending is also significantly reduced while in the program – down from 3.6 to 2.1 offences every six months. This is equivalent to a 42 percent reduction in offending while in the drug court program. Across the offence types, the relative reductions were 54 percent in property offending and 72 percent in drug offending.

After leaving the drug court program:

- 59 percent of those who graduate had been reconvicted of a new offence within two years of their graduation. The first post-graduation offence occurred after an average of 379 days
- 77 percent of terminates had been reconvicted within two years of their release from prison. The average time to first offence was 139 days
- graduates committed an average of 0.61 offences every six months after their graduation, down by 80 percent when compared to the 12 months prior to their entry into the drug court program
- terminates committed an average of 1.38 offences every six months after being released from prison – 63 percent lower than their rate of offending in the 12 months prior to drug court participation.

Compared to the prisoner comparison group, the graduates' rate of offending after their drug court experience was not only significantly lower, but represented a greater percentage decline when compared to their offending in the 12 months prior to their drug court experience (or imprisonment for the comparison group). There were no real differences between terminates and the prisoner comparison group in both their pre and post-drug court/imprisonment offending rates.

Overall, these recidivism findings confirm earlier drug court work that those who graduate from the program have significantly improved criminal justice outcomes when compared to those who terminate and/or those who were imprisoned. This report, having the capacity to examine no less than two years of recidivism data, finds that this effect is seemingly sustained into the medium to long term. The fact that the terminates' recidivism was not significantly different from the prisoner comparison group confirms earlier suspicions that the drug court, in this case, did not seem to have any obvious effect in further deteriorating the criminal justice outcomes for those who fail in the program.

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Technical appendix: methodology

Measuring reoffending

Recidivism is a technical term used to define the act of reoffending and its measurement is complicated by a number of factors, not the least of which is the availability of suitable data. For the purposes of this study, two measures of recidivism were developed:

- the time taken to reoffend
- the frequency of reoffending.

Note that the prevalence of reoffending – that is, the overall percentage of offenders who reoffend – is not included as an outcome measure of recidivism in this study. Although prevalence rates are provided, they are reasonably uninterpretable without the consideration and application of a metric of time. Given that some participants were engaged in the drug court program for longer than others, the 'opportunity' to reoffend is likely to be different for each participant. As such, longitudinal analytic techniques, such as survival analysis and growth analysis, are used to measure the occurrence of an event (or multiple events) as a function of the time an individual was available to reoffend.

Moreover, these longitudinal methodologies recognise that some drug-dependent criminal offenders are significantly enmeshed in a criminal lifestyle prior to their contact with the drug court program. As such, total abstinence from offending, while ideal, is not a realistic outcome for all drug-dependent offenders. Therefore, prolonging an offender's re-contact with the criminal justice system and reducing the frequency of his or her contact are key measures of success that can result in significant financial and social benefits for the community.

The comparison groups

In order to determine whether drug court participants were less likely to reoffend, it is important to compare their reoffending patterns to one or more comparison group. The gold standard in evaluation is a randomised control trial whereby drug court clients are randomly selected for participation. Those not selected to participate are placed into a control group and processed through the courts in the usual way. Assuming that randomisation does not introduce any bias, the outcomes of the drug court participants can be compared to the relative outcomes of the control group, and the differences interpreted as resulting from the drug court's intervention.

In Queensland, random allocation to the drug court program was not attempted nor considered as an option for the delivery of drug court services. Such an option would have denied access to a viable population of offenders for whom the program was designed to target. Because of this, there is no randomised control group to compare the recidivism results.

Instead, two comparison groups were established. The first is a sample of 100 drug court participants who had terminated from the drug court program. Like graduates, these were

the first 100 drug court participants to terminate from the program. The second is a group of 107 prisoners identified using administrative records held by the Queensland Department of Corrective Services as being comparable to the drug court clients. In selecting the prisoner comparison group, the Queensland Department of Corrective Services considered only those prisoners who were:

- sentenced offenders (as distinct from remand offenders) serving at least part of their sentence in a custodial facility in South East Queensland
- not sentenced for an offence that would have disqualified them from participating in the drug court program
- flagged as having been under the influence of drugs at the time of offending in the episode in question
- sentenced to less than three years imprisonment.

In this report, outcome data are presented for all three groups, referred to as graduates (n=100), terminates (n=100) and the prisoner comparison group (n=107).

The observation period

Inherent to the study of recidivism is the observation of criminal events over time. In this evaluation, the observation periods are anchored by what is termed 'the intervention'. For the drug court graduates and terminates, the intervention is considered to be measured as the full duration of each offender's participation in the drug court program, while for the prisoner comparison group, the intervention is the imprisonment episode identified during the sample selection.

Three specific observation periods are used in this study:

- The **pre-intervention period** – which includes an offender's entire criminal history from the date of their first recorded offence to the date of their intervention (that is, their IDRO or their imprisonment). In some analyses, this pre-intervention period is restricted to the previous 12 months so that comparative pre and post-intervention analysis can be provided.
- The **intervention period** – which includes all criminal events recorded during the period of an individual's participation in the drug court program. For graduates and terminates, this includes the time between admission and graduation or termination. Since the prisoner comparison group was in prison for the duration of their intervention, the prisoners were unable to freely commit criminal offences and are therefore not observed.
- The **post-intervention period** – which includes all criminal events recorded from the completion of the intervention to 2 June 2006. For graduates, this is from the date of graduation. For terminates and the prisoner comparison group, it is from the date of release from prison, which in the case of terminates is subsequent to their termination.

Because each offender commences and/or exits the drug court at different times, the actual number of days he or she is observed during each of these periods will vary. Table A1 presents the average number of days each group was observed in each of the relevant observation periods. The pre-intervention period is omitted since it expands each offender's entire criminal history and is dependent on the offender's age at the time of first entering the intervention. For the other periods:

- graduates were observed for an average of 489 days while in the drug court program, and 1,195 days after graduation. This amounts to an average combined observation period of 1,685 days
- terminates were participants in the drug court program for an average of 559 days (including the time they spent in custody on final sentence) and were observed for 1,365 days after termination. The average combined observation period from the time of admission to the drug court program was 1,923 days
- the prisoner control group was followed for an average of 1,848 days in the post-intervention period. This is equivalent to the combined period of observation since prisoners were unable to offend and therefore not observed during the intervention.

Note that the total number of observable days in each of the observation periods is not necessarily indicative of the number of days each offender was free and able to reoffend. Some participants in the drug court program are incarcerated for varying lengths of time, and while in prison are technically unable to engage in recidivist activities. As such, an adjustment is needed to the follow-up period to account for the amount of time each offender was incapacitated and unable to reoffend. To do this, the number of days spent in prison is subtracted from the total number of observable days, resulting in a new estimate of the intervention and post-intervention observation periods.

To illustrate, we track two hypothetical offenders for 100 days, over which time both offenders each committed 10 new offence episodes. Without the adjustment for prison time, each offender is taken to have reoffended at a rate of 0.10 (or one offence episode every 10 days). Imagine however that Offender A was apprehended and sentenced to 50 days imprisonment during this time, while Offender B was not. For Offender B, the offending rate remains at 0.10, while for Offender A, the 10 offences committed in the 100 observable days actually occurred within the 50 days that the offender was not in prison. The offending rate is therefore adjusted to 0.20 (or one offence episode every five free days), suggesting that Offender A's rate of recidivism is twice that of Offender B's.

Table A1 presents the average time each of the groups spent in custody during the observable follow-up period. Prison time is calculated as the sum of any custody episodes recorded by the Queensland Department of Corrective Services during the post-commencement periods. For terminates this includes the time spent in prison as a result of the final sentence imposed at the time of termination.

- Just less than half of graduates were imprisoned during the time they were participants in the drug court program (47%). Overall, graduates spent on average 12 days in the custody of the Queensland Department of Corrective Services. Since successfully completing the drug court, one in four graduates returned to prison at least once, spending an average of 72 days in custody.
- Ninety-six percent of terminates were imprisoned while participating in the drug court program (including their final sentence at termination). The remaining four terminates had absconded and were terminated ex-parte. They were yet to be apprehended by the police. Overall, terminates spent an average of 383 days in custody. Since being released from their final sentence, 46 percent of terminates were reimprisoned before 2 June 2006 and spent an average of 218 days in prison.
- Since being released from prison, 58 percent of the prisoner comparison group were reimprisoned by 2 June 2006 and spent an average of 246 days in custody.

In terms of adjusted follow-up:

- graduates were observed for an average of 477 free days during the intervention and 1,124 after graduating
- terminates were observed for an average of 176 free days while in the drug court program, and 1,147 free days since being released from their final sentence
- the prisoner control group was observed for an average of 1,602 free days since being released from prison.

Table A1: Follow-up times as at 2 June 2006

	Graduated (n=100)	Terminated (n=100)	Prisoner comparison (n=107)
Intervention period			
Mean days during the intervention (a)	489	559[a]	–
Percent imprisoned during the intervention	47	96[a]	–
Mean prison days during the intervention (b)	12	383[a]	–
Mean free days during the intervention (a-b)	477	176[a]	–
Post-intervention period (post-finalisation)			
Mean days observed post-intervention (a)	1,195	1,365	1,848
Percent imprisoned post-intervention	24	46	58
Mean prison days post-intervention (b)	72	218	246
Mean free days post-intervention (a-b)	1,124	1,147	1,602

a: Includes final sentence on termination. Four terminated participants absconded and did not serve their final sentence at the time of their ex-parte termination

– Not applicable

Source: AIC, Queensland drug court database [computer file]

In terms of the actual analysis, there is some debate surrounding the appropriate use of comparisons, contrasts and observation periods in drug court evaluations. The issue in contention is what constitutes an appropriate measure of the drug court's effect, or from what point in time can the drug court legitimately be evaluated. Some argue that drug courts should be evaluated from the commencement of each offender's participation in the program. For these people, the drug court is expected to deliver notable reductions in offending from day one – after all, the relatively high levels of supervision, programming and drug treatment are expected to have an immediate impact. On the flipside, others argue that measuring the drug court from the date of commencement may unfairly bias the results against those who participate. For these people the drug court represents a staged, community-based intervention (as opposed to complete incapacitation through incarceration) where minor criminal infractions, although not welcomed, are not unexpected. Realistically, the drug court allows drug-dependent criminal offenders to be released into the community while undergoing intensive drug rehabilitation – complete abstinence from criminal offending would be an ideal, but unrealistic, goal.

Assuming that both the intervention and post-intervention periods are used in the analysis, the second issue is whether during the intervention period any reliable contrast can (or should) be made with the prisoner comparison group. In early drug court evaluations, including the AIC's earlier studies in Queensland, a prisoner group was used as a comparative baseline against which the drug court's effect was measured. In these earlier evaluations, the prisoners' baseline offending rate was used to compare against the drug court participants when they were in the drug court program as well as when they left the program (either by graduation or termination). In addition, the prisoner comparison group was used as a comparative baseline for this entire observation period, since it was the only relative comparison that could be made given the limitations in the available data. In this evaluation, no such limitation exists. For the first 100 graduates in this study there is no less than two years of post-intervention criminal offending data, and therefore the question of when and for what periods the prisoner comparison group should be used was revisited.

After much deliberation it was decided that the prisoner comparison group did not provide a reliable baseline comparison with drug court participants *during* the intervention period. In other words, the prisoners' post-release offending rate was not considered to be comparable with the offending rate of drug court participants while they were participating in the drug court program. This is for a number of reasons, but primarily because the prisoners' relative offending rate is calculated from the time of their release from prison. At this time, they have undergone the full length of their respective intervention and, more importantly for this evaluation, are relatively drug abstinent. Compare this with the drug court participants who at the time of commencement in the drug court program are still heavy drug users and yet to undergo any drug treatment or offender rehabilitation programs. In essence, the intervention for the drug court participants was their drug court order, for prisoners it was their imprisonment. Both groups can only be legitimately compared in the post-intervention period (after graduation, termination and release from prison) – the time when groups have experienced the full effect of their comparative interventions.

The data

Criminal offending estimates used in this evaluation have been calculated from deidentified data extracted from the Queensland Police Service's criminal history records. These records pertain to those criminal offences committed by an individual for which he or she was detected, apprehended, charged and convicted. These conviction data are commonly used in recidivism analyses as proximal measures of offending and are consistent with the data used in previous evaluations of the Queensland drug court program.

From the police criminal history records, it is possible to obtain the following information:

- offence type
- number of counts – times charged with that offence on any one day
- offence date – the date in which the offences were committed
- court date – the date in which the offences were heard in court
- court outcome – the penalty imposed by the court at the time of conviction.

Using the recorded offences and relevant offence dates, it is possible to map an offender's criminal history, as well as to identify which offences were committed during and after his or her participation in the drug court program. Moreover, the offence dates can be used to calculate the number of days between criminal offences so that it can be determined how long, on average, it takes an offender to reoffend.

Criminal conviction data are, however, not without their limitations. Conviction data, as with all other forms of administrative data, will under-estimate an offender's *true* offending rate. This is because an offender is not detected and charged for every offence they commit, and even if they were, not all charges result in a conviction. It is important to appreciate that the data used in this study do not measure those offences committed by the offender that were undetected by the police or that were detected but did not result in an arrest and/or conviction.

Despite their imperfections, official police records are the closest and most consistent measure of reoffending available. Although likely to underestimate the absolute number of criminal offences committed by the offenders in this study, the point estimates are considered to be reasonably representative of an offender's underlying criminal activity. There is a long tradition in criminology that sees officially recorded police data as a reliable method for criminal event analysis (see Coleman & Moynihan 1996; Harrison 1997).

Finally, and as a matter of consistency, like offences occurring on the same date are coded and referred to as an offence 'episode'. Episodic measurement is used for a number of reasons, including controlling for the possible inconsistencies in how individual offences are recorded. Aggregating to an arrest episode allows us to measure the unique intervals in which a criminal transaction occurs, and controls for possible bias in police recording practices. To this end, the estimates provided for property offence episodes relate to the number of days in which an offender is recorded as having committed at least one property offence.

Table A2 describes the entire criminal offending database used in this evaluation. It provides unique counts of episodes of each offence type, divided across three unique observation periods and across each of the three evaluation groups. Taken together, the database contains information on a total of:

- 4,750 property offence episodes
- 520 violent offence episodes
- 1,312 drug offence episodes
- 1,926 breach-related offence episodes
- 1,338 other offence episodes.

Table A2: Criminal offending database summary, total offending episodes as at 2 June 2006

	Graduated (n=100)	Terminated (n=100)	Prisoner comparison (n=107)	Total
Pre-intervention period				
Property offence	1,142	1,197	1,157	3,496
Violent offence	113	142	131	386
Drug offence	317	271	392	980
Breach offence	280	389	438	1,107
Other offence	300	397	310	1,007
Intervention period				
Property offence	69	221	–	290
Violent offence	8	24	–	32
Drug offence	9	39	–	48
Breach offence	106	139	–	245
Other offence	17	65	–	82
Post-intervention period				
Property offence	159	358	447	964
Violent offence	17	37	48	102
Drug offence	54	122	108	284
Breach offence	100	262	212	574
Other offence	37	104	108	249

– Not applicable

Source: AIC, Queensland drug court database [computer file]

The statistical analysis

Two primary statistical techniques are used in this evaluation – survival analysis and multi-level change analysis. The former is a technique that examines time taken to reoffend while the latter facilitates the comparative analysis of offending trajectories before, during and after the intervention. Both techniques, although undertaken to answer quite separate questions about recidivism, are complimentary in that they both provide information about the comparative recidivism risk among groups. They were chosen primarily because of their utility with longitudinal data – where the subject of interest is one or more events that occur over time, and are especially useful in cases where the length of time under observation varies among offenders.

Survival analysis, for example, examines the number of days from any common reference point to an event of interest. In this evaluation, survival analysis is conducted from the day of entry into the drug court program, or from the day of exiting the program, and is used to model the number of days to first and subsequent criminal offences. The time taken to offend is a measure of the extent to which one form of intervention has prolonged an offender's re-engagement into criminal activity, with longer periods of abstinence taken to indicate greater intervention effect.

Multi-level change analysis measures the comparative change in the aggregate rate of offending among and within groups. The analysis determines whether, compared to the pre-intervention period, the average rate of offending within a group is higher, lower or unchanged in the post-intervention period. In addition, it allows comparative analysis between groups so as to determine whether any identified decline in offending is greater for one intervention compared to another.

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It has been almost 10 years since the first Australian drug court commenced operation and now these courts operate nation-wide in all but three states and territories. Over this time, drug courts have been subjected to a wide range of reviews and evaluations, including the Australian Institute of Criminology's (AIC's) evaluation of those drug courts operating in both the North and South East of Queensland. This report is the third in a series of evaluations produced by the AIC. It highlights key aspects of the court's operation and describes the longitudinal recidivism outcomes of those who are successful and unsuccessful in their endeavours to become drug and crime free.