



An economic
analysis for
Aboriginal and
Torres Strait Islander
offenders

prison vs
residential
treatment

An economic analysis for Aboriginal and Torres Strait Islander offenders prison vs residential treatment



A report prepared for the National
Indigenous Drug and Alcohol Committee,
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Contents

Abbreviations.....	vi
Executive summary.....	vii
1 Introduction	1
1.1 Method	1
1.2 Findings from previous studies	2
2 Patterns and prevalence of Indigenous Australians in the prison system	6
2.1 Indigenous Australians in the prison system	6
2.2 Indigenous prisoners with problematic substance use.....	9
2.3 Sentencing, prior offending and re-offending among Indigenous prisoners ...	16
3 Diversion programs in Australia	20
3.1 Objectives of diversion	20
3.2 Pre-sentence diversion programs.....	21
3.3 Residential drug and alcohol treatment	25
3.4 Drug courts	27
3.5 Indigenous participation in diversion programs.....	30
4 Defining the target population, intervention and comparator	32
4.1 Target population	32
4.2 The status quo scenario: incarceration with limited treatment	33
4.3 The alternative scenario: diversion to residential treatment	36
5 The impact and implications of incarceration versus residential treatment ...	38
5.1 Impact of diversion programs	38
5.2 Impact of incarceration	40
6 Costs of incarceration versus residential treatment.....	42
6.1 Introduction	42
6.2 Incarceration with limited treatment	42
6.3 Diversion and residential treatment	48

7	Cost–benefit analysis, results and conclusions	53
7.1	Aim	53
7.2	Methods	53
7.3	Costs	53
7.4	Benefits	55
7.5	Results	61
7.6	Conclusion	63
8	References	64
	Appendix A	70

Charts

Chart 2.1	Male prisoners, Indigenous and non-Indigenous, Australia, 20 June 2011 . . .	7
Chart 2.2	Female prisoners, Indigenous and non-Indigenous, Australia, 20 June 2011 . .	7
Chart 2.3	Indigenous male prisoners and prison entrants, 2011	8
Chart 2.4	Indigenous female prisoners and prison entrants, 2011	8
Chart 2.5	Prison entrants and general population using illicit drugs, 2010	9
Chart 2.6	Prison entrants using alcohol and drugs, by type, 2010	10
Chart 2.7	Drinking characteristics, New South Wales Inmate Health Survey 2009	11
Chart 2.8	Illicit drug and alcohol use among men, New South Wales Inmate Health Survey 2009	12
Chart 2.9	Illicit drug and alcohol use among women, New South Wales Inmate Health Survey 2009	13
Chart 2.10	Attribution of crime to drug and alcohol use among adult male prisoners . .	15
Chart 2.11	Indigenous prisoners convicted of non-violent offences, 2011	17
Chart 2.12	Indigenous prisoners, 2011 (total)	17
Chart 2.13	Indigenous prisoners convicted of violent offences, 2011	18
Chart 2.14	Proportion of prisoners convicted of a prior offence, 2011	19
Chart 6.1	Total real net operating expenditure, 2006–07 to 2010–11	43
Chart 6.2	Real net operating expenditure by states and territories, 2006–07 to 2010–11	44
Chart 6.3	Total net operating expenditure and capital costs per prisoner per day, 2012–13	47

Tables

Table 1	Net present value, 2012–13	xii
Table 3.1	Eligibility criteria to participate in MERIT and CREDIT programs	24
Table 4.1	Drug treatment provided in prisons across states and territories	34
Table 6.1	Net operating expenditure, capital costs and transport and escort service costs per prisoner per day, 2012–13	46
Table 6.2	Descriptive statistics for cost estimates, residential rehabilitation, 2012–13 ..	51
Table 7.1	Total cost per person, 2012–13	54
Table 7.2	Estimated re-offending rates over 10 years	55
Table 7.3	Number of mental outpatient visits before and after first release from prison	56
Table 7.4	Number of hospital admissions for a mental disorder before and after first release from prison	57
Table 7.5	Mortality rates for standard population versus Indigenous population previously imprisoned	59
Table 7.6	Net present value, 2012–13	61



Figures

Figure 3.1	Diversion points along the criminal justice pathway	20
Figure 3.2	Pre-sentence diversion offender pathway	22
Figure 3.3	Assessment process for admission to a therapeutic community at Cyrenian House	26
Figure 3.4	Offender pathway, diversion to treatment, New South Wales Drug Court ...	28
Figure 4.1	Offender pathway, incarceration scenario	36
Figure 4.2	Offender pathway, diversion to residential treatment scenario	37
Figure 5.1	Potential pathways for prisoners observed in the Prisoner Census	40

Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIC	Australian Institute of Criminology
AIHW	Australian Institute of Health and Welfare
ANCD	Australian National Council on Drugs
AOD	alcohol and other drugs
BCR	benefit cost ratio
CREDIT	Court Referral of Eligible Defendants into Treatment
CPI	Consumer Price Index
DALY	disability adjusted life year
DTO	Drug Treatment Order
DUCO	Drug Use Careers of Offenders study
IDDI	Illicit Drug Diversion Initiative
MERIT	Magistrates Early Referral into Treatment
NIDAC	National Indigenous Drug and Alcohol Committee
NSW	New South Wales
NT	Northern Territory
QLD	Queensland
ROGS	Report on Government Services
SA	South Australia
SACPA	Substance Abuse and Crime Prevention Act 2000 (California)
SCRGSP	Steering Committee for the Review of Government Service Provision
SMART	Substance Misuse and Referral for Treatment
SMR	standardised mortality ratio
TAS	Tasmania
VIC	Victoria
VSLY	value of a statistical life year
US	United States
WA	Western Australia
YLL	years of life lost due to premature mortality

Executive summary

The National Indigenous Drug and Alcohol Committee (NIDAC), a committee of the Australian National Council on Drugs (ANCD), released a position paper, *Bridges and Barriers: addressing Indigenous incarceration and health*, (NIDAC 2009), which identified a disproportionate number of Indigenous Australians in the correctional system, and argued the importance of diverting young men and women away from a life of substance use and crime. The report recommended that funding be redirected from the construction and operation of any further correctional system centres to establish a ‘break the cycle’ network of Indigenous-specific residential rehabilitation services for courts to utilise as a viable alternative to incarceration.

Deloitte Access Economics was appointed by NIDAC to:

- examine the patterns and prevalence of Indigenous people in the prison system
- outline the impact and implications of incarceration of Indigenous people, and
- analyse the costs and benefits of addressing Indigenous problematic alcohol and drug use with treatment, particularly residential rehabilitation, as compared to prison.

Patterns and prevalence of Indigenous people in the prison system

Indigenous Australians are over-represented in Australian prisons. At 30 June 2011, there were 29 106 prisoners in Australian prisons, of which 7656 (26%) were Indigenous (Australian Bureau of Statistics 2011a). By comparison, 2.5 per cent of the total population was Indigenous in 2011 (Australian Bureau of Statistics 2011b). In 2010–11, the imprisonment rate for Indigenous adults (aged 18 years or over) was 1746.5¹ per 100 000 compared with a corresponding rate of 125.4 for non-Indigenous people – a ratio of Indigenous to non-Indigenous imprisonment rates of 13.9 (Steering Committee for the Review of Government Service Provision 2012).

In 2011, 70 per cent of Indigenous prisoners convicted of a violent offence had been previously convicted, and 81 per cent of Indigenous prisoners convicted of a non-violent offence (Australian Bureau of Statistics 2011a). Indigenous prisoners were more likely to have been convicted of a prior offence than non-Indigenous prisoners. The majority of prisoners whose primary conviction was non-violent faced sentences (or expected to serve time) of less than five years, with more than three-quarters expected to serve less than two years. Overall, the proportion of Indigenous prisoners with an expected serving time of less than two years was 31 per cent.

Around 68 per cent of Indigenous (and 65 per cent of non-Indigenous) prison entrants self-reported having used illicit drugs during the preceding 12 months (Australian Institute of Health and Welfare 2011a). Of all Indigenous prison entrants, those aged 18–24 years old were most likely to have used illicit drugs (76%). Based on data from a New South Wales survey, Indigenous prisoners are also significantly more likely to be dependent on alcohol than non-Indigenous prisoners, and Indigenous men were significantly more likely to report that they were intoxicated at the time of the offence for which they were incarcerated (Indig et al. 2010).

¹ National, age standardised.

Over the course of 2011, approximately 2476 Indigenous men and 400 Indigenous women *entered*² prisons in Australia (based on analysis of data from Australian Bureau of Statistics 2011a).

For the purposes of this study, Indigenous people who experience problematic drug or alcohol use and who are in prison for non-violent offences were seen as potentially benefiting from diversion from prison into a residential treatment program. Approximately half of Indigenous prisoners linked their offending to drug and alcohol use – suggesting approximately 3827 Indigenous prisoners in 2011 (see section 2.2). Excluding those who stated that their most serious offence was a violent offence leaves approximately 1607 Indigenous prisoners in 2011 who committed a non-violent offence which they attributed to drug and alcohol use. There are many factors that influence the choice of treatment, and the appropriateness of diversion, so the estimates here should be interpreted as broad approximations. Nevertheless, the potential quantum of the offender population who could be considered for diversion into residential rehabilitation treatment is around 1600 in 2011.

Cost and impact of incarceration

In 2011, there were 115 correctional custodial facilities in Australia, and in 2010–11, more than \$3 billion was spent on Australian prisons – comprising \$2.3 billion in net operating expenditure³ and \$0.8 billion in capital costs (Steering Committee for the Review of Government Service Provision 2012). The capital cost represents an annualised cost of the capital invested in prisons including the user cost of capital,⁴ depreciation and – for private prisons⁵ – debt service fees.

- In real terms,⁶ between 2006–07 and 2010–11, real net operating expenditure grew at a rate of 1.9 per cent per annum.
- The estimated annual average cost per prisoner per day in 2012–13 is \$315.

Re-offending rates are high and incarceration is associated with poor health outcomes for prisoners, including a relatively higher risk of mortality post-release. Research suggests that outcomes of incarceration are worse for Indigenous Australians than for non-Indigenous Australians.

² Note: This is the number who entered prison in 2011. As stated earlier, in total, there were 7656 Indigenous prisoners in 2011.

³ Excluding revenue from prison industries and excluding transport/escort services.

⁴ Calculated as 8 per cent of the value of government assets.

⁵ In 2011, there were eight privately operated prisons in Australia.

⁶ Adjusting for inflation-related growth.

Diversion

Diversion can occur at four points along the criminal justice pathway: pre-arrest; pre-trial; pre-sentence; and post-sentence. The scope of this report was limited at NIDAC's request to pre-sentence diversion that involves an offence linked to substance use or dependency (either directly or indirectly, e.g. a property offence committed under the influence of alcohol or drugs). The offender must also have faced the possibility of going to prison if convicted.

The proposed alternative to prison – residential treatment

Residential treatment facilities differ in terms of models of care and the services that are provided. The personal nature of problematic drug and alcohol use means that there is no 'one size fits all' approach, which makes it difficult to define a 'typical' residential facility offering drug and alcohol treatment for Indigenous people. Treatment approaches include: family and community support and involvement; abstinence; cultural support and involvement; harm reduction; controlled drinking; controlled use of other substances; and religious/spiritual support. Some facilities operate as a 'therapeutic community', whereby the residents and staff create a community that sets the agenda for changes among the participants. In addition to services for residents, facilities also frequently provide community outreach drug and alcohol services, including within prisons.

Indigenous Australians appear to be under-represented in diversions by courts to drug and alcohol treatment facilities. In 2009–10, out of a total 17 589 referrals from court diversion, 13.7 per cent were for Indigenous people – far lower than the proportion of people incarcerated who are Indigenous. The eligibility criteria for diversion programs have been highlighted previously as a barrier to entry for Indigenous people. While this has been identified and is being addressed, there are still access problems because of the remote location of Indigenous communities, and a lack of funded places in culturally appropriate treatment programs. In 2009–10, nearly three-quarters of residential treatment and rehabilitation services providing services to Indigenous clients had a waiting list. In addition, the advice provided by experts to this project suggests a shortage of medical practitioners, counsellors and other specialised staff.

Cost and impact of residential treatment

In 2009–10, there were 30 facilities providing residential drug and alcohol treatment to Indigenous people.⁷ These facilities provided services to 3448 residential clients, 82 per cent of whom were Indigenous.

Estimated expenditure per residential treatment client (including both operating and capital costs) ranged from \$8608 to \$33 822, with a mean of \$18 385 and median of \$15 556. The total average cost per client per day (including both operating and capital costs) is between \$204.5 and \$284.9. The capital expenditure component ranged from around \$16 to \$50 per bed day.

⁷ Facilities do not exclude non-Indigenous participants, however their focus is on addressing the needs of Indigenous people.

Evaluations of diversion treatment programs for offenders with drug and alcohol problems are favourable. A study of outcomes for Drug Court participants (Weatherburn et al. 2008) compared three groups: participants who successfully completed the treatment program; participants who did not complete; and a comparator group who were eligible for the Drug Court program but were excluded for various reasons, and who mostly ended up incarcerated. Outcomes for Drug Court participants (whether they completed the program successfully or not) were better than for the comparator group. Participants were less likely to be reconvicted of an offence, including offences against the person as well as drug offences. An evaluation of the Magistrates Early Referral into Treatment (MERIT) program in New South Wales (Lulham 2009) found a significant reduction in the re-offending rate for theft and for any type of offence. The findings of these two studies are supported by findings of other research in Australia.

Cost–benefit analysis

The cost–benefit analysis compares the costs and benefits of investment in residential drug and alcohol treatment for Indigenous people convicted of non-violent crime related to their substance use versus incarceration. The analysis was conducted over a ten-year period. Future costs and benefits were discounted at a rate of 7 per cent, in accordance with the Office of Best Practice Regulation (Australian Government Department of Finance and Deregulation 2011). While the nature of drug and alcohol treatment that is available to offenders in prison is highly variable across Australia, the analysis assumed a ‘best case’ scenario in which offenders would have access to drug-free units. The net present value of the following costs and benefits was estimated for the year 2012–13:

- The costs of incarceration and residential treatment include both operating and capital expenditure. Revenue from prison industries was excluded.
- Outcomes included in the analysis were: recidivism; prison-related contraction of hepatitis C; drug and alcohol treatment outcomes; mental health outcomes; and the risk of mortality post-prison.
- Residential treatment completion rates/drop-out were incorporated into the analysis.

The findings in terms of the difference between the net present value of the costs and benefits of prison and residential treatment are presented in Table 1. A negative result in the ‘difference’ column represents a financial saving resulting from the use of residential rehabilitation instead of prison or an improvement in mortality and health-related quality of life.

The analysis in this report highlights the considerable benefits associated with the diversion of Indigenous offenders into community residential drug and alcohol rehabilitation services instead of incarceration. Diversion is associated with financial savings as well as improvements in health and mortality.

- The total financial savings associated with diversion to community residential rehabilitation compared with prison are \$111 458 per offender.
- The costs of treatment in community residential rehabilitation services are substantially cheaper than prison. Diversion would lead to substantial savings per offender of \$96 446, based on a cost of community residential rehabilitation treatment of \$18 385 per offender). Even if the high side estimate of the cost per offender for residential rehabilitation treatment was used (\$33 822), the saving would still be substantial at around \$81 000.
- Community residential treatment is also associated with better outcomes compared with prison – lower recidivism rates and better health outcomes, and thus savings in health system costs. The savings associated with these additional benefits of community residential treatment are approximately \$15 012 per offender.
- In addition, treatment of Indigenous offenders in the community rather than in prison is also associated with lower mortality and better health-related quality of life. In monetary terms, these non-financial benefits have been estimated at \$92 759 per offender.

As the residential treatment scenario is lower cost and is associated with better outcomes than incarceration, it is clearly the more advantageous investment.

Table 1: Net present value (NPV), 2012–13

Items	NPV prison Column A	NPV resi rehab Column B	Difference Column B – Column A	Comment
Costs				
Cost of each alternative	\$114 832	\$18 385	–\$96 446	Use of residential rehabilitation represents a saving
Benefits				
<i>Financial benefits</i>				
Recidivism	\$96 348	\$84 888	–\$11 461	Recidivism is lower with residential rehabilitation, leading to savings in prison costs
Mental health service usage	\$3278	\$0	–\$3278	Residential rehabilitation is not associated with the same adverse impacts on mental health as prison, leading to savings in use of mental health services
Hepatitis C treatment costs	\$1993	\$1747	–\$246	Residential rehabilitation is associated with lower rates of contraction of hepatitis C, leading to savings in treatment costs
Costs of drug use for those who relapse	\$164	\$136	–\$28	Residential rehabilitation is associated with lower rates of drug use relapse, leading to savings in healthcare and productivity costs
Subtotal financial	\$101 783	\$86 771	–\$15 012	Savings per offender resulting from use of residential rehabilitation
Net financial benefit of residential rehabilitation			–\$111 458	Savings per offender resulting from use of residential rehabilitation

Items	NPV prison Column A	NPV resi rehab Column B	Difference Column B – Column A	Comment
<i>Non-financial benefits (improved mortality and quality of life)</i>				
Hepatitis C burden of disease	\$23 281	\$23 065	–\$216	These figures represent the monetary value of improvements in mortality and quality of life, and represent benefits of using residential rehabilitation in addition to the financial benefits above
Premature mortality	\$92 543		–\$92 543	
Total non- financial	\$115 824	\$23 065	–\$92 759	

Note: Figures may not add to totals due to rounding.

Source: Deloitte Access Economics calculation.

1. Introduction

The National Indigenous Drug and Alcohol Committee (NIDAC), a committee of the Australian National Council on Drugs (ANCD), released a position paper, *Bridges and Barriers: addressing Indigenous incarceration and health* (National Indigenous Drug and Alcohol Committee 2009), which identified a disproportionate number of Indigenous Australians in the correctional system, and argued in favour of the importance of diverting young men and women from a life of substance use and crime. The report recommended that funding be redirected from the construction and operation of any further correctional system centres to establish a 'break the cycle' network of Indigenous-specific residential rehabilitation services for courts to utilise as a viable alternative to incarceration.

To inform further work in this area, NIDAC commissioned Deloitte Access Economics to:

- identify the patterns and prevalence of Indigenous Australians in the prison system
- outline the impact and implications of incarceration of Indigenous Australians, and
- analyse the costs and benefits of addressing Indigenous problematic substance use with treatment, particularly residential rehabilitation, as compared to prison.

1.1 Method

A number of sources of information have informed the analysis presented in this report, including a scan of relevant literature and data repositories, and consultations with key stakeholders.

A data and literature scan was undertaken to establish the evidence base for residential treatment and to identify key data sources for use in the economic modelling of the costs and benefits of residential treatment compared with prison. We searched PubMed, and checked publications and data from the Australian Institute of Health and Welfare, the Australian Bureau of Statistics and the Australian Institute of Criminology, together with other government reports. The reference list at the end of this report documents the sources used as inputs to the analysis.

We consulted the following stakeholders to ensure an understanding of approaches that would be considered appropriate and the costs and benefits of these approaches:

- experts in the field of residential drug treatment, including in a custodial environment
- staff of residential substance use treatment facilities delivering services to Indigenous and non-Indigenous people, offenders and non-offenders, and
- magistrates from drug courts.

We thank these stakeholders for their assistance.

1.2 Findings from previous studies

1.2.1 Australian studies

A number of studies in Australia have examined outcomes from drug diversion programs, in particular the Magistrates Early Referral into Treatment (MERIT) program, the Court Referral of Eligible Defendants into Treatment (CREDIT) program, and the New South Wales Drug Court. A summary of the evidence for these models of drug diversion is provided below.

In New South Wales, the **Magistrates Early Referral into Treatment (MERIT)** drug diversion program provided defendants in local courts with the option of undertaking formal drug treatment while on bail. Specifically, the MERIT program was a ‘pre-plea’ drug diversion program, as both referral and treatment occurred prior to the defendant making a plea of guilty or not guilty for the relevant offence(s). Typically, a MERIT treatment program lasted about three months in duration and occurred prior to sentencing. An individual could be referred for a MERIT assessment by the magistrate, the defendant’s lawyer or by self-referral. A MERIT health professional would then assess defendants referred to the program. Defendants accepted into the program were assigned a MERIT case manager who would work with the defendant to implement an agreed treatment plan. Interventions in the treatment plan could include drug and alcohol counselling, pharmacotherapy interventions, welfare assistance and inpatient or outpatient detoxification. During the intervention period, the court would be informed if a participant failed to attend appointments, committed an offence or breached bail conditions. On completion of the program, the MERIT caseworker would provide the magistrate with a final report for consideration in sentencing (Lulham 2009).

Lulham (2009) conducted an evaluation of the impact of the MERIT program by comparing the re-offending outcomes for a cohort of 2396 defendants who participated in the MERIT program with a comparison group of defendants who did not participate in the MERIT program but who broadly met the eligibility criteria. Acceptance into the MERIT program, regardless of completion, was found to significantly reduce the number of defendants committing any theft re-offence by an estimated 4 percentage points. Acceptance and completion of the MERIT program significantly reduced the number of defendants committing any type of offence by an estimated 12 percentage points, and any theft re-offence by 4 percentage points. The evaluation found that participation in the MERIT program reduced defendants’ propensity to commit theft offences and, for those who completed the program, substantially reduced their propensity to commit any type of re-offence.

The **Court Referral of Eligible Defendants into Treatment (CREDIT)** program was a court-based intervention program involving either voluntary or court-ordered participation by New South Wales adult defendants. The design of the CREDIT program was partially influenced by two Victorian programs – the Neighbourhood Justice Centre and the Court Intervention Services Program. According to Trimboli (2012), in the pilot stage, a defendant could be referred to the CREDIT program either before or after entering a plea. Pre-plea referrals could be made by magistrates, solicitors, police officers or staff of other court-based programs (such as Forum Sentencing, the MERIT program and the Mental Health Court Liaison Service). A defendant could also self-refer. However, once a plea was entered, only a magistrate

could refer a defendant to CREDIT. An initial assessment would determine the eligibility of the defendant. Once it was determined that a defendant met the criteria, a detailed assessment would follow with the aim of identifying key factors that could be contributing to the offending behaviour, which would be addressed in an individualised intervention plan. The intervention plan would be provided to the court such that an adjournment could be requested to allow the defendant's participation in CREDIT. The CREDIT caseworker would then refer the defendant to existing and appropriate specialist service provider(s) or other court-based programs if necessary. Progress reports could be submitted to court for further adjournment if required by the caseworker. On completion of the program, final compliance and progress reports would be submitted to court. The defendant's participation in CREDIT officially ended once sentenced by the magistrate.

Over the two-year pilot period, CREDIT received 719 referrals, conducted 637 assessments and had 451 participants. The majority (420, 93.1%) of these individuals participated in the program only once. However, 30 (6.7%) defendants participated twice and one defendant participated three times. Most defendants referred for treatment had their referral accepted. It was found that almost all participants interviewed were 'satisfied' or 'very satisfied' with the support they received from CREDIT staff and with their own progress on the program; 95.9 per cent of the participants reported that their life had changed for the better by being on the program. Stakeholders' opinions of the pilot program were also positive. Some of their recommendations included an extension of the program, an enhancement of relevant services, programs and transport options in the catchment areas, and clarification of the relationship between CREDIT and other court-based programs (Trimboli 2012).

Goodall et al. (2008) conducted a cost-benefit analysis of the **New South Wales Drug Court**, which demonstrated a saving of \$3.5 million over two years (\$1.8 million per year) for a cohort of 295 Drug Court participants during 2005 and 2006. Data were collected on resources used up until August 2008, with participants still in the program at that time excluded (seven individuals). It is important to note that Drug Court participants were not diverted from incarceration – rather, sentences were reduced on average for participants. The period of final incarceration was associated with 51 per cent of the costs for Drug Court participants, which totalled \$114 119 per participant. Costs of operating the Drug Court were 19 per cent of the total costs.

An economic evaluation for the New South Wales Drug Court was also conducted by Lind et al. (2002) to examine whether the Drug Court was more cost-effective in reducing drug-related crime than conventional sanctions. The total sample for this analysis was 309 participants where, out of the 309 participants, 23 persons were in the graduated group, 195 persons were in the terminated group, and 91 persons were in the continuing group as at 31 December 2000. All expenditures directly related to the operation of the Drug Court such as salary, on-costs and overhead were included. These costs, i.e. total costs, were then calculated across individuals based on their length of stay in the Drug Court program (treatment, and probation and parole); in detoxification (detoxification unit); number and type of appearances (Drug Court costs); number of urine screens; and time in gaol (length and frequency of sanction, length of sentences up to 31 December 2000).

In total, the cost for all 309 participants was estimated to be around \$13 495 727. The total cost for the 195 persons who were terminated from the program was estimated to be \$8 805 146, which constituted more than 50 per cent of the total cost. Only \$928 128 was spent on the 23 participants who graduated from the program. The remaining amount was spent on participants who were still continuing with the program at the time of analysis. Further, of the total cost of \$13 495 727, a significant portion was due to treatment (\$3 352 341) and court attendances (\$2 846 362). The cost of sanctions also significantly contributed to the overall cost of the Drug Court program, standing at \$1 417 677.

Dividing the total cost by the total days on the program, Lind et al. (2002) estimated that the cost per day for an individual placed on the Drug Court program was around \$143.87. This was slightly less than the cost per day for offenders placed in the control group and sanctioned by conventional means: \$151.72. The total cost for the control group was based on the cost of assessment, detention cost, incarceration cost, community service order as well as cost of probation.

A further discussion of outcomes studies is provided in chapter 5.

1.2.2 International studies

In California, the *Substance Abuse and Crime Prevention Act 2000* (SACPA) (known as Proposition 36) diverted individuals convicted of a non-violent, drug-related offence (excluding alcohol) from a period of incarceration into drug treatment, including in a residential facility. Approximately 11.6 per cent of offenders entering treatment were treated in a residential facility in 2007–08 (Urada et al. 2009). Evaluations of SACPA were conducted over most years of its operation, and completion rates across all modes of drug diversion treatment programs were noted to be approximately 41 per cent in the seventh year of its operation. The population of drug offenders in California's prisons dropped by 7.4 percentage points over this period. In years 4, 5 and 6, Proposition 36 completers had fewer re-arrests over a 12-month follow-up period than offenders who did not complete treatment. However, the evaluations concluded that it is difficult to attribute this to a narrow policy effort as opposed to a convergence of many factors (Urada et al. 2009). Funding for the diversion programs provided under SACPA was discontinued on 1 July 2009, in part due to budgetary pressures in the State of California (Urada et al. 2009).

A cost analysis report of SACPA over the first and second years (Longshore et al. 2006) analysed costs borne in criminal justice, social services and taxes paid by offenders, focusing on the costs to state and local governments. Outcomes for more than 60 000 SACPA participants were estimated against a comparator group of adults convicted prior to the enactment of SACPA (over 1997 and 1998), but who would have been eligible.

The first-year benefit–cost ratio (BCR) was 2.5 to 1, primarily due to reduced incarceration costs, with cost savings of US\$2861 per offender over the 30-month follow-up period. This represented a net saving to government of \$173.3 million (net of \$3 million state administrative costs).

The second-year BCR for drug treatment completers was estimated at 4 to 1, despite higher treatment costs for this group. Overall cost-savings per offender were more than twice as high for those who completed treatment (\$5601) compared with those who never entered (\$2468) or did not complete treatment (\$2386). The study excluded costs of mental health services, welfare payments and child welfare services.

Longshore et al. (2003) studied a sample of 53 000 SACPA participants, 10 per cent of whom were placed in residential treatment facilities. Forty-three per cent of these individuals remained in the facility for 90 days of treatment, which was considered the minimum to be effective.

Crevecœur-MacPhail et al. (2010), evaluating SACPA programs in Los Angeles County in 2008–09, found that: cocaine, methamphetamine and marijuana use decreased by 90, 89 and 93 per cent respectively in the 30 days prior to admission to treatment and discharge from treatment; alcohol use decreased by 83 per cent; and heroin use by 55 per cent. Over half of the participants left treatment with satisfactory compliance.

Lo Sasso et al. (2012) studied adults leaving substance abuse treatment under the Oxford House model in the United States between 2002 and 2005. Oxford House is a self-run, abstinent facility, with no professional staff. Residents agree to abide by guidelines that are set democratically within the house and decide on their own treatment program – 90 per cent of participants completed the programs they set. The net benefit was estimated to be US\$29 000 per person on average. There were higher costs, but also additional benefits, in terms of reduced illegal activity, incarceration and substance abuse.

2. Patterns and prevalence of Indigenous Australians in the prison system

This chapter describes the extent to which Indigenous Australians are represented among the current prisoner population (section 2.1), the patterns and prevalence of Indigenous Australians with problematic substance use in the prison system (section 2.2), and sentencing, prior offending and re-offending (section 2.3).

An estimate of the magnitude of the number of Indigenous people who could potentially benefit from diversion to a residential drug treatment facility is made in this chapter – that is, Indigenous people who experience problematic drug or alcohol use and who are in prison for non-violent offences. Notably, as mentioned in chapter 3 and section 4.1, there are many factors that influence the choice of treatment, and the appropriateness of diversion, hence the estimates here are broad approximations. There is a discussion of Indigenous Australians in diversion programs in section 3.5.

6

2.1 Indigenous Australians in the prison system

An adult prisoner census undertaken on 30 June 2011 (Australian Bureau of Statistics 2011a) found there were 27 059 male prisoners, 7033 of whom (26%) were Indigenous (Chart 2.1). Of the 2024 female prisoners counted in the census, 622 (31%) were Indigenous (Chart 2.2). By comparison, 2.5 per cent of the total population was Indigenous in 2011 (Australian Bureau of Statistics 2011b).

The national (crude⁸) imprisonment rate per 100 000 Indigenous adults in 2010–11 was 2241.7 compared with a corresponding rate of 121.5 for non-Indigenous prisoners (Steering Committee for the Review of Government Service Provision 2012). Even taking into account the younger age structure of the Indigenous population, Indigenous people are more likely to be incarcerated than non-Indigenous people. The national age-standardised imprisonment rate per 100 000 Indigenous adults in 2010–11 was 1746.5 compared with a corresponding rate of 125.4 for non-Indigenous prisoners – a ratio of Indigenous to non-Indigenous imprisonment rates of 13.9 (Steering Committee for the Review of Government Service Provision 2012).

⁸ Not age standardised.

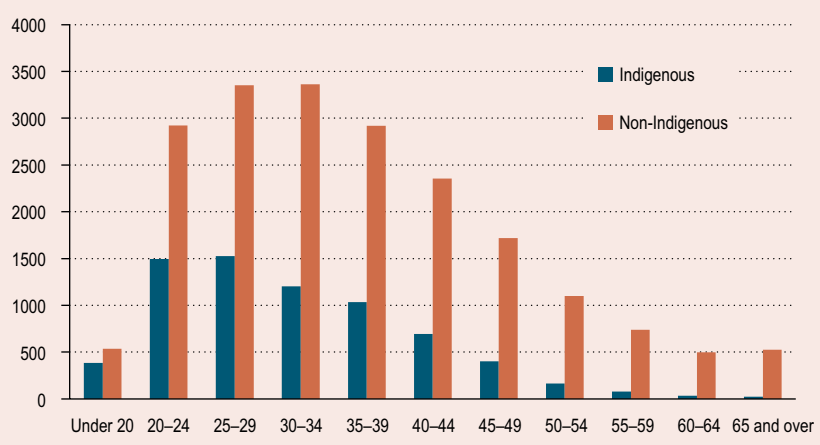


Chart 2.1: Male prisoners, Indigenous and non-Indigenous, Australia, 20 June 2011
Source: Australian Bureau of Statistics 2011a.

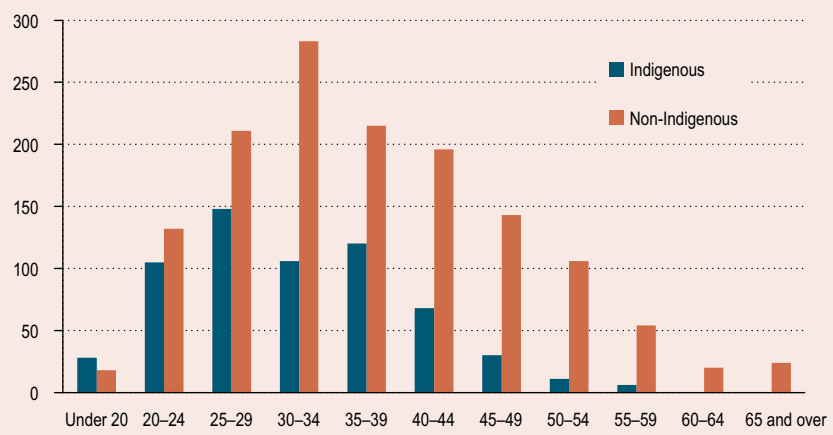


Chart 2.2: Female prisoners, Indigenous and non-Indigenous, Australia, 20 June 2011
Source: Australian Bureau of Statistics 2011a.

The expected time to serve among the prisoners surveyed during the census was, on average, 34.1 months for males and 18.4 months for females. This would imply that, over the course of 2011, approximately 2476 Indigenous men and 400 Indigenous women entered prisons in Australia (calculated from distinct means for expected time to serve by state, sex and numbers of Indigenous prisoners) (Australian Bureau of Statistics 2011a) (Chart 2.3 and Chart 2.4).

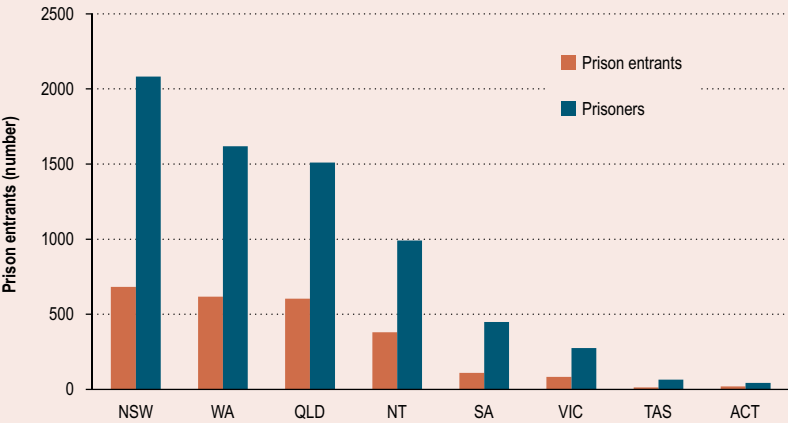


Chart 2.3: Indigenous male prisoners and prison entrants, 2011
Source: Australian Bureau of Statistics 2011a.

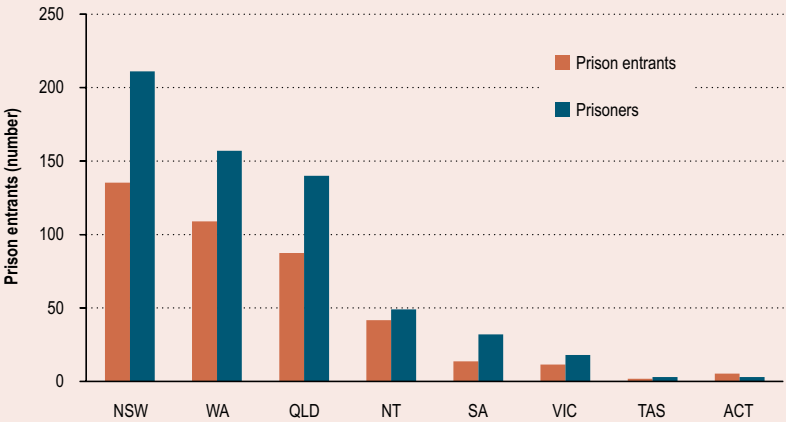


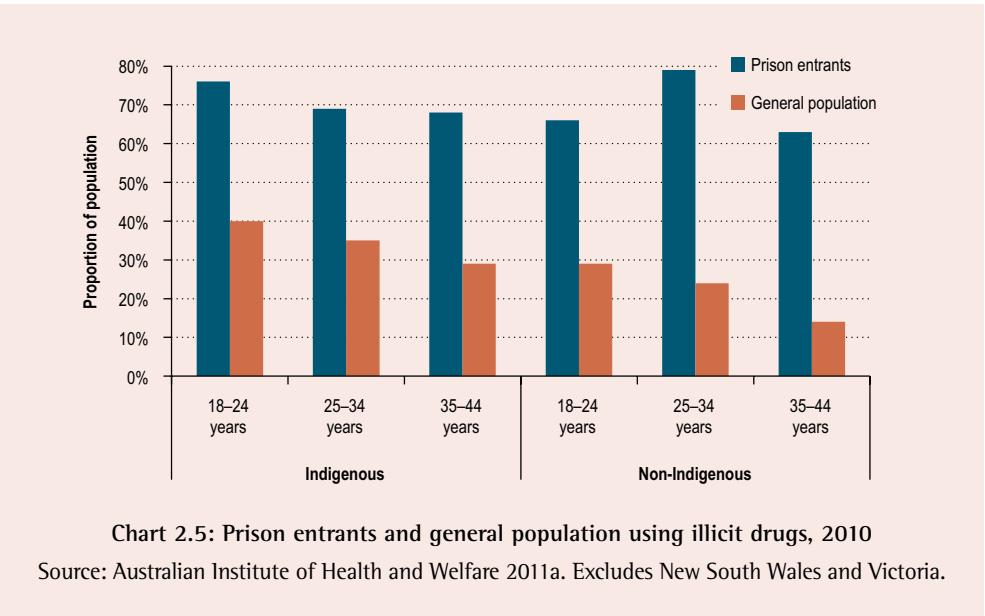
Chart 2.4: Indigenous female prisoners and prison entrants, 2011
Source: Australian Bureau of Statistics 2011a.

2.2 Indigenous prisoners with problematic substance use

To understand the population of Indigenous prisoners who may benefit from diversion to residential drug treatment, it is useful to reflect on the prevalence of problematic drug and alcohol use among Indigenous people in prison. Notably, substance abuse and being male have been suggested as the strongest predictors of Indigenous peoples' self-reported contact with the justice system (Hunter 2001; Weatherburn et al. 2006; 2008, cited in Allard 2010).

Two Australian Institute of Health and Welfare reports provide estimates of illicit drug use in the past 12 months among a sample of prison entrants⁹ (Australian Institute of Health and Welfare 2010; 2011a). The 2009 report excluded results from the Northern Territory, where Indigenous people make up the highest proportion of total prisoners of any jurisdiction (82%, vs the national average of 26%); and the 2010 report excluded New South Wales and Victoria, and the two most populous cities in Australia, Sydney and Melbourne, where drug profiles of offenders are likely to differ from more regional areas. The results should be interpreted with this in mind. Where data are provided in both reports, these are presented as averages.

Overall, 68 per cent of Indigenous and 65 per cent of non-Indigenous prison entrants self-reported having used illicit drugs during the preceding 12 months (Chart 2.5). The estimates of the number of Indigenous prison entrants in 2011 above (2476 men and 400 women) then suggest around 1956 Indigenous prison entrants were using illicit drugs in that year.



⁹ Results for the Northern Territory were excluded from the 2009 report and results for New South Wales and Victoria were excluded from the 2010 report. Jurisdictional outcomes are not published. Both the Indigenous and non-Indigenous populations have unique characteristics in all three of these jurisdictions. The figures used in this report are therefore based on an average of the 2009 and 2010 results (weighted by the Indigenous population in the sample in each year).

Indigenous prison entrants aged 18–24 years, and non-Indigenous prison entrants aged 25–34 years were most likely to have used illicit drugs (76% and 79% respectively). Among both the Indigenous and non-Indigenous populations examined, prison entrants were more than twice as likely as non-prison entrants to have used illicit drugs, across all age groups.

Chart 2.6 depicts the proportions of prison entrants using alcohol and various types of illicit drugs. Alcohol is the most commonly used substance (approximately 70% of Indigenous prison entrants), followed by cannabis (54%). Amphetamines, analgesics and other drugs¹⁰ had also been used by more than 20 per cent of prison entrants in both the Indigenous and non-Indigenous groups. Amphetamine use was more prevalent in the non-Indigenous sample than the Indigenous sample (38% vs 19%), as was other drug use (49% vs 24%) (Australian Institute of Health and Welfare 2010). These data exclude New South Wales and Victoria.

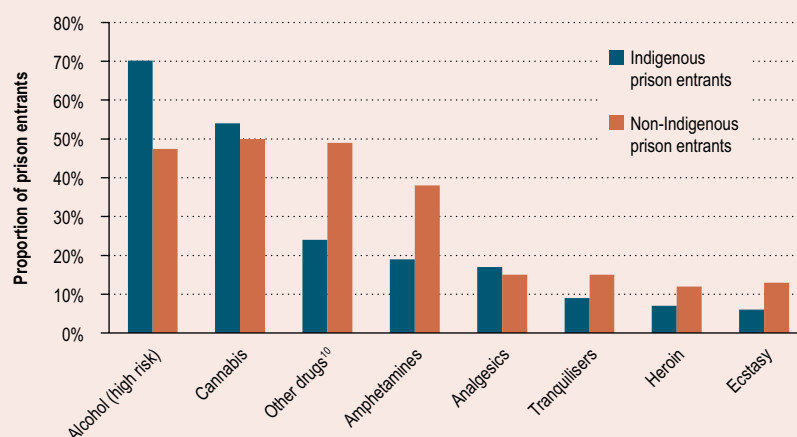


Chart 2.6: Prison entrants using alcohol and drugs, by type, 2010

Source: Australian Institute of Health and Welfare 2011a.

Figures for illicit drugs exclude New South Wales and Victoria. Figures for alcohol are calculated as an average across 2009 (which excluded Northern Territory and Tasmania) and 2010 (which excluded New South Wales and Victoria).

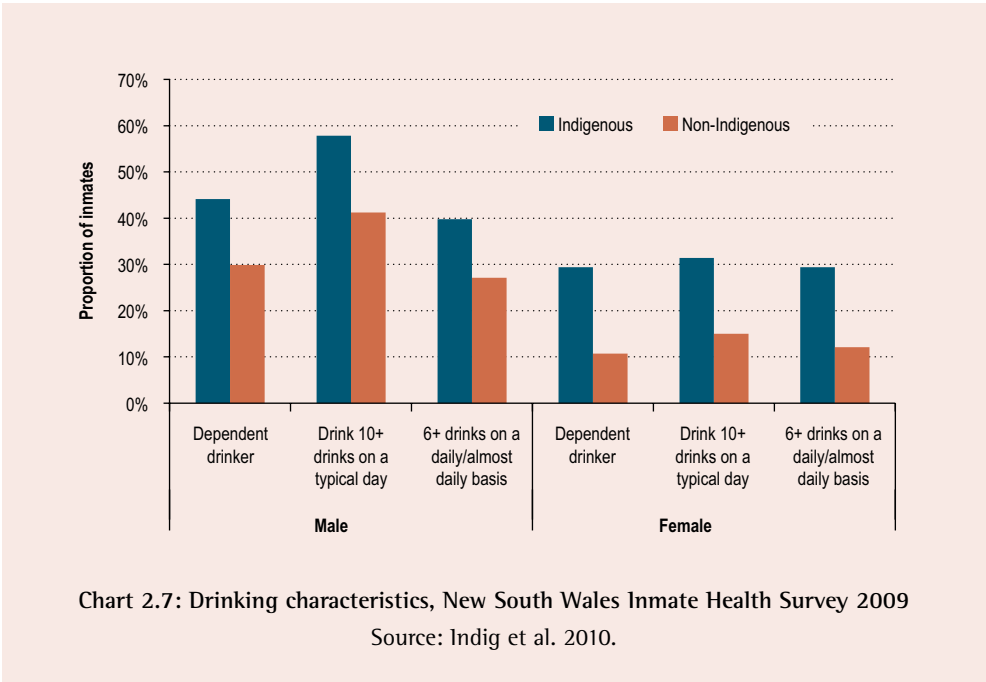
Risky alcohol consumption is defined as scoring 6 or above on the AUDIT test.

¹⁰ 'Other drugs' include other analgesics, methadone/buprenorphine/Suboxone, barbiturates, ketamine, inhalants – petrol/volatile solvents, inhalants – anaesthetics/nitrates/other inhalants, steroids, cocaine, gamma-Hydroxybutyric acid (GHB), hallucinogens and other drugs not specified.

Indig et al. (2010) provide further insights into drug dependency among Indigenous prisoners in New South Wales based on a survey of 996 inmates from 30 adult correctional centres. Women and Aboriginal people were over-represented in the sample to ensure better estimates of health issues for these populations.

- Around 44 per cent of Indigenous men were defined as dependent drinkers;¹¹ 39.8 per cent had six or more drinks on a daily or almost daily basis in the year before entering prison; and 57.8 per cent would usually drink ten or more drinks on a typical day.
- Among Indigenous women, 29.4 per cent were dependent drinkers; 29.4 per cent had six or more drinks on a daily or almost daily basis; and 31.4 per cent would usually drink ten or more drinks on a typical day.

Alcohol dependence was found to be significantly more likely among both Indigenous men (44.1% vs 29.9%, $p<0.01$) and Indigenous women (29.4% vs 10.7%, $p<0.01$) (Chart 2.7) (Indig et al. 2010).



¹¹ Defined as scoring 20 or above on the AUDIT test.

Chart 2.8 and Chart 2.9 describe the illicit drug and alcohol dependency characteristics of New South Wales inmates included in the survey. Daily or almost daily use of drugs or alcohol during the 12 months prior to incarceration was higher in Indigenous than in non-Indigenous men (51% vs 38%) and in Indigenous than in non-Indigenous women (62% vs 51%). The authors did not report whether this difference was statistically significant. However, Indigenous men were significantly more likely to report that they were intoxicated at the time of the offence for which they were currently incarcerated (73% vs 59%, $p < 0.01$), as were Indigenous women (67% vs 44%, $p < 0.01$) (Indig et al. 2010).

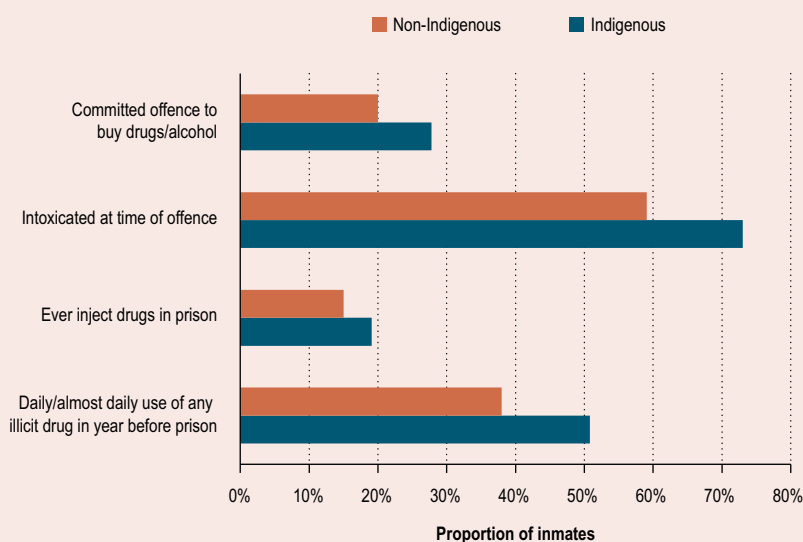
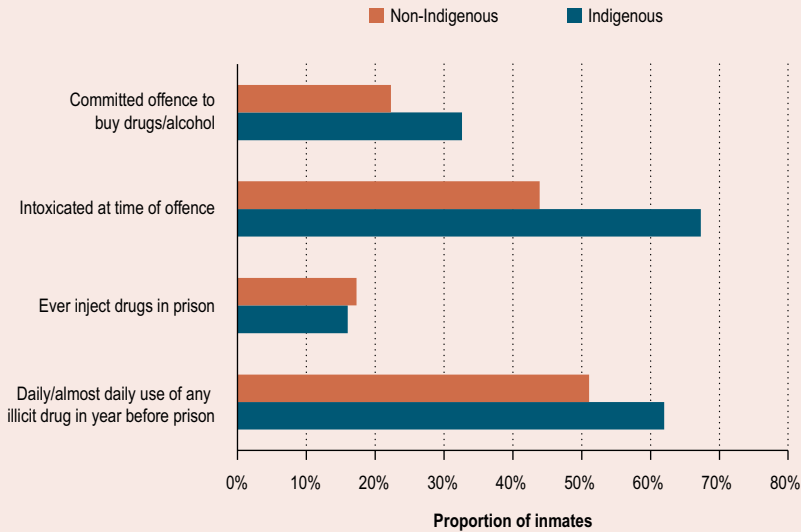


Chart 2.8: Illicit drug and alcohol use among men,
New South Wales Inmate Health Survey 2009

Source: Indig et al. 2010.



**Chart 2.9: Illicit drug and alcohol use among women,
New South Wales Inmate Health Survey 2009**

Source: Indig et al. 2010.

The survey (Indig et al. 2010) also indicated high levels of a history of injecting drug use among Indigenous prisoners, with 46.1 per cent of Indigenous men and 50.0 per cent of Indigenous women reporting ever having injected drugs; however, the authors noted that this represented a considerable decrease from levels reported in 2001 (57.4% and 92.0%, respectively).

The authors of the New South Wales Inmate Health Survey concluded that (Indig et al. 2010, p. 41):

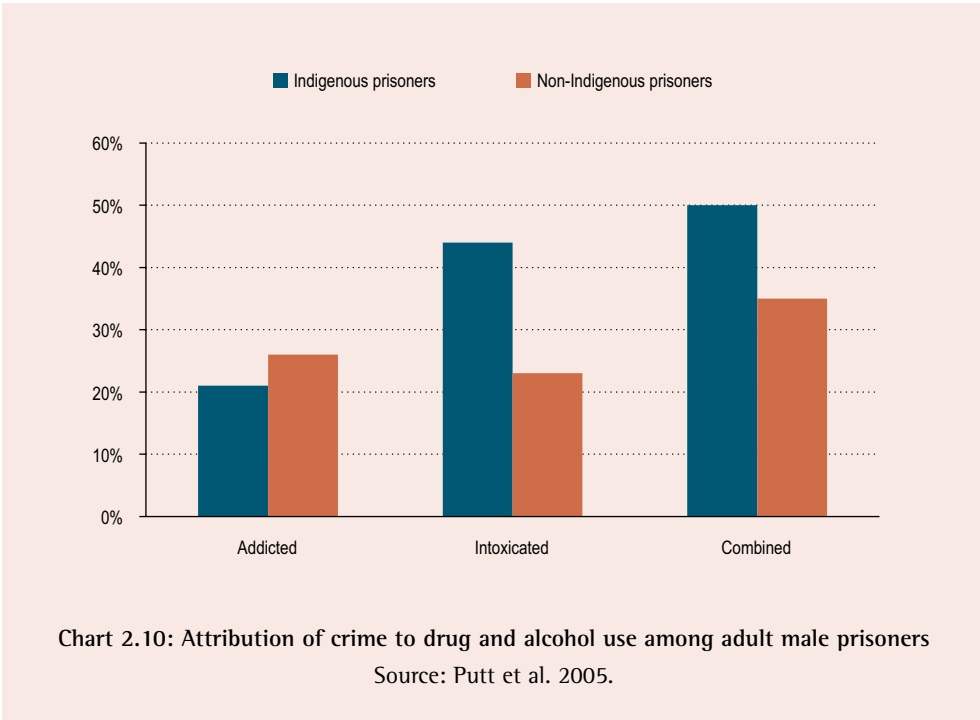
While pharmacotherapy programs have been successful in reducing crime (Lind et al. 2004), access to programs is limited, particularly in rural areas due to limited services and access barriers such as transport. Among the samples of approximately 900 injecting drug users who participate in the survey component of the annual Illicit Drug Reporting System, Australia's illicit drug market surveillance system, current enrolment in methadone treatment has remained relatively stable at a national level at around 30% among injecting drug users since 2005 (Stafford & Burns 2010).

Putt et al. (2005) analysed data from the Drug Use Careers of Offenders (DUCO) project to compare drug and alcohol use among Indigenous and non-Indigenous adult male prisoners. The DUCO sample included 2135 adult male prisoners in Queensland, Western Australia, Northern Territory and Tasmania during 2001, 25 per cent of whom were Indigenous. Seventy-two per cent of Indigenous offenders reported having ever committed a violent offence.

- Alcohol and cannabis were the most significant drug dependencies reported by Indigenous prisoners.
- The proportion of Indigenous prisoners who reported using alcohol in the six months prior to imprisonment was significantly higher than for non-Indigenous prisoners (91% vs 76%), as was the proportion who reported being dependent on alcohol (38% vs 14%).
- While similar proportions of Indigenous and non-Indigenous prisoners reported using cannabis in the six months prior to imprisonment (61%), the proportion of Indigenous prisoners who reported being addicted or dependent on cannabis was significantly higher than for non-Indigenous prisoners (27% vs 20%).
- Moreover, use of heroin and amphetamines was significantly higher among non-Indigenous prisoners (46% amphetamines, 31% heroin) than for Indigenous prisoners (28% amphetamines, 15% heroin), as was dependence.

The study also found that 69 per cent of Indigenous prisoners had used alcohol at the time of arrest or commission of the offence, compared with 27 per cent of non-Indigenous prisoners. These results were further analysed to estimate the extent to which the most recent offence was attributed directly to intoxication or addiction. For an offence to be classified as caused by drugs or alcohol, the offender must have stated that the offence was related to drugs or alcohol and that the offender was either intoxicated or dependent on drugs at the time of offending (Makkai and Payne 2003).

The results were significantly different for Indigenous and non-Indigenous prisoners, as shown in Chart 2.10. Indigenous prisoners were more likely to attribute their crime to drug or alcohol use than non-Indigenous prisoners (50% vs 35%); however, this was primarily due to intoxication, rather than dependency. Intoxication among Indigenous prisoners has been linked with violent crime (Wundersitz 2010). Putt et al. do not link drug and alcohol use as the cause with the type of offence; however, among the Indigenous sample population, 58 per cent stated that a violent offence was the most serious offence associated with their incarceration.



Since half of Indigenous prisoners linked their offending to drug and alcohol use, this suggests that there is considerable potential to divert Indigenous offenders from prison through effective drug and alcohol treatment. If we apply this estimate to the number of Indigenous prisoners currently incarcerated, this suggests that approximately 3827 Indigenous prisoners in 2011 would attribute their crime to drug and alcohol use. Considering the proportion of those who stated that their most serious offence was a violent offence, this would leave approximately 1607 Indigenous prisoners in 2011 who committed a non-violent offence which they attributed to drug and alcohol use.

2.3 Sentencing, prior offending and re-offending among Indigenous prisoners

2.3.1 Sentence length

Excluding prisoners with indeterminate, life with a minimum, and periodic detention sentences, the median aggregate sentence length¹² for sentenced Aboriginal and Torres Strait Islander prisoners was 2.0 years (24 months), while for sentenced non-Indigenous prisoners it was 3.9 years (47 months) (Australian Bureau of Statistics 2011a).

Excluding prisoners with indeterminate, life without a minimum, and periodic detention sentences, the median expected time to serve¹³ for sentenced Aboriginal and Torres Strait Islander prisoners was 1.3 years (15 months). For the non-Indigenous prisoner population, the median expected time to serve was 2.3 years (27 months).

2.3.1.1 Sentence length for non-violent offences

Chart 2.11 shows the numbers of Indigenous prisoners whose most serious offence had been non-violent,¹⁴ by sentence length and expected time to serve (Australian Bureau of Statistics 2011a).

The majority of Indigenous prisoners whose primary conviction was non-violent faced sentences/expected time to serve of less than five years, with more than three-quarters expected to serve less than two years. Overall, the proportion of Indigenous prisoners with an expected serving time of less than two years was 31 per cent (Chart 2.12). While these data are reported as the frequency of sentences within each of the sentence length categories, the median sentence length for non-violent offences is estimated to be at the lower end of 12–24 months. Conversely, the median sentence length was estimated to be at the lower end of the 2–5 year group for prisoners convicted of violent offences (Chart 2.13).

In total, there were 2344 Indigenous prisoners in Australia serving a sentence for non-violent offences in 2011, and 3492 Indigenous prisoners in Australia serving a sentence for violent offences.

¹² The aggregate sentence is the longest period that the convicted prisoner may be detained for the current sentenced offences in the current episode.

¹³ The expected time to serve is the period of imprisonment that a convicted prisoner is expected to serve taking into account the earliest date of release for sentenced prisoners.

¹⁴ The following categories were excluded: homicide and related offences; acts intended to cause injury; sexual assault and related offences; dangerous or negligent acts endangering persons; abduction, harassment and other offences against the person; robbery, extortion and related offences; prohibited and regulated weapons and explosives offences.

The following categories were included: unlawful entry with intent; theft and related offences; fraud, deception and related offences; illicit drug offences; property damage and environmental pollution; public order offences; traffic and vehicle regulatory offences; and offences against justice procedures, government security and operations.

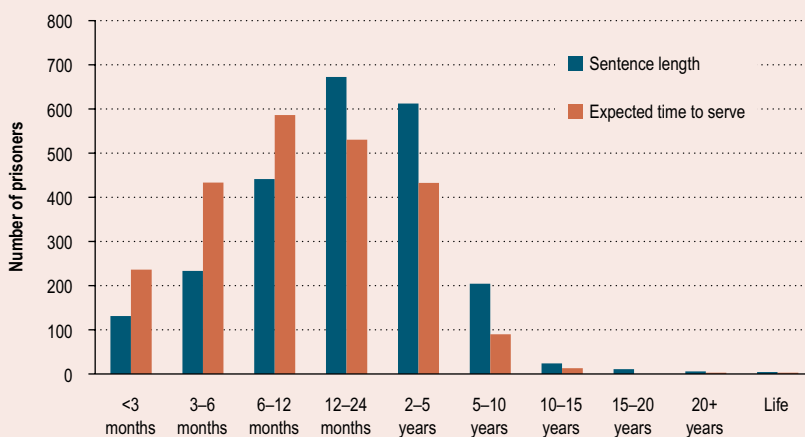


Chart 2.11: Indigenous prisoners convicted of non-violent offences, 2011

Source: Australian Bureau of Statistics 2011a.

Note: excludes periodic detention.

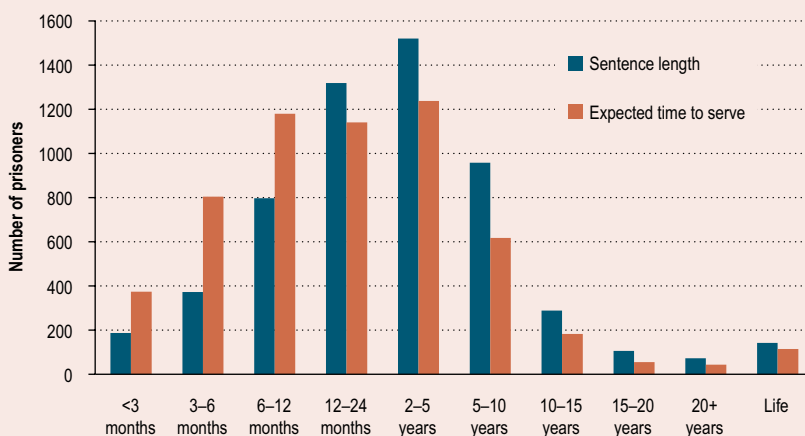


Chart 2.12: Indigenous prisoners, 2011 (total)

Source: Australian Bureau of Statistics 2011a.

Note: excludes periodic detention.

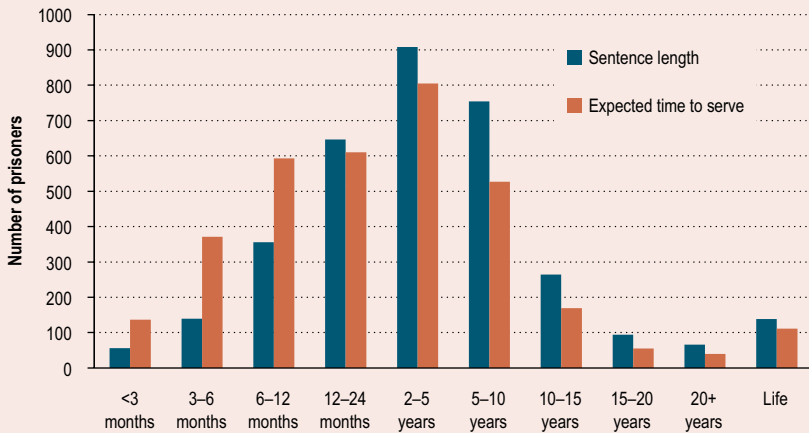


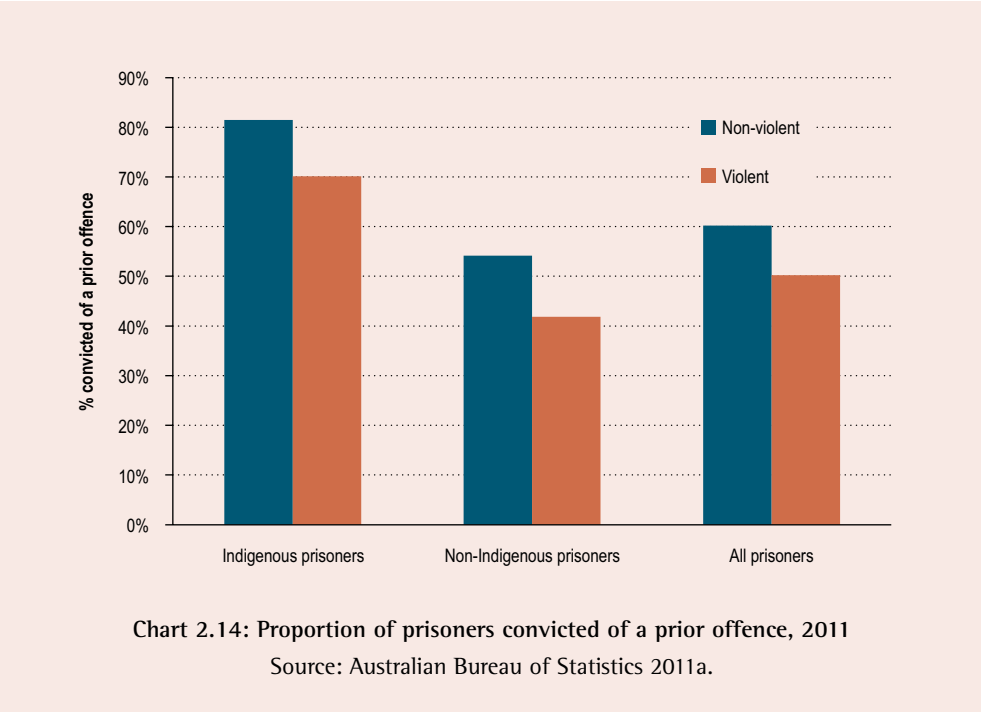
Chart 2.13: Indigenous prisoners convicted of violent offences, 2011

Source: Australian Bureau of Statistics 2011a.

Note: excludes periodic detention.

2.3.2 Prior offending

Indigenous prisoners were more likely to have been convicted of a prior offence than were non-Indigenous prisoners (Australian Bureau of Statistics 2011a). Chart 2.14 shows that 81 per cent of Indigenous prisoners convicted of a non-violent offence had been previously convicted, as had 70 per cent of prisoners convicted of a violent offence. The same rates were 54 per cent and 42 per cent for non-Indigenous prisoners.



2.3.3 Re-offending rates

As well as having higher prior offending rates, Indigenous prisoners have also been found to have higher re-offending rates than non-Indigenous prisoners (Thompson 1995; Jones et al. 2006; Holland et al. 2007). While there has been some indication that this association may be confounded by age and type of offence (Thompson 2005), another study found that Indigenous parolees were 1.4 times more likely to re-offend than non-Indigenous parolees, even when these variables were accounted for (Jones et al. 2006).

A Victorian study (Holland et al. 2007) found that Indigenous prisoners returned to prison at significantly higher rates than non-Indigenous prisoners, with 50 per cent of Indigenous prisoners returning to prison within two years compared with 34 per cent of non-Indigenous prisoners. However, this same study found that, when age, gender, offence type, sentence length and imprisonment history were accounted for, Indigenous status was no longer significantly associated with recidivism. The authors suggest that the relationship between Indigenous status and recidivism might be driven by other factors such as age and number of prior terms of imprisonment, both of which are significant predictors of recidivism. However, both a greater number of prior imprisonment terms and higher recidivism rates represent the greater likelihood of Indigenous prisoners being repeatedly incarcerated compared to non-Indigenous prisoners.

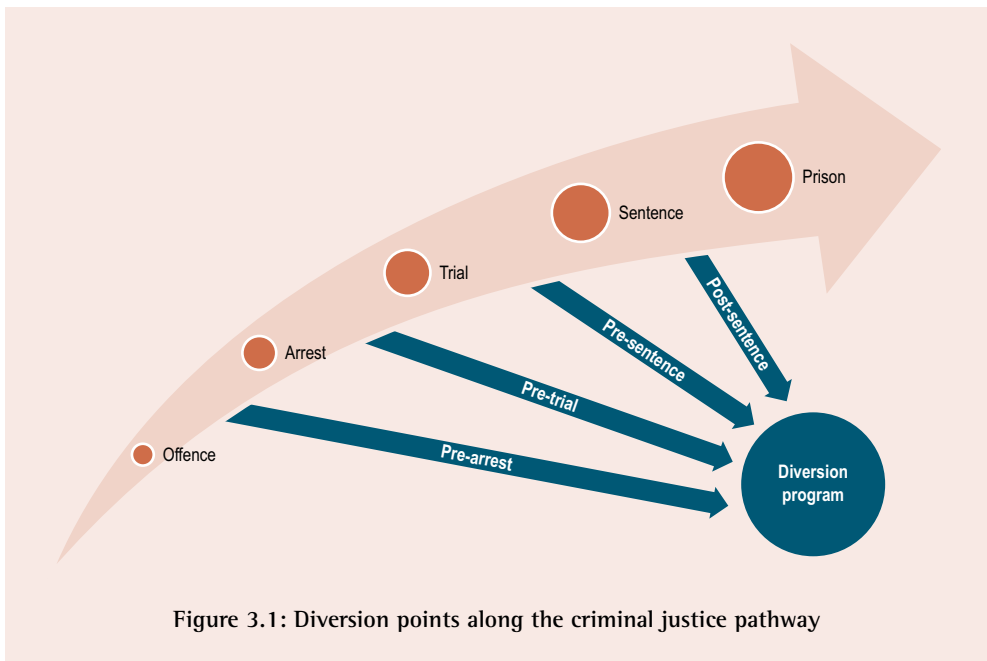
3. Diversion programs in Australia

3.1 Objectives of diversion

Diversion has several objectives including:

- avoiding the negative labelling and stigma associated with criminal conduct and contact with the criminal justice system
- preventing further offending by minimising a person's contact with and progression through the criminal justice system
- reducing the number of people reaching prisons (and associated burdens and costs in the criminal justice system), and
- providing appropriate interventions to offenders in need of treatment or other services (Joudo 2008).

Diversion can occur at four points along the criminal justice pathway, as indicated in Figure 3.1: pre-arrest; pre-trial; pre-sentence; and post-sentence.



The scope of this report has been limited at NIDAC's request to pre-sentence diversion that involves an offence linked to substance use or dependency (either directly or indirectly, e.g. a property offence committed under the influence of alcohol or drugs). The offender must face the possibility of going to prison if convicted. The use of a pre-sentence diversion was chosen as it reflects the approach of a number of existing diversion programs (explored more fully in section 3.2), it avoids additional costs to the justice system associated with

sentencing, and it ensures that offenders who are likely to be facing a custodial sentence are considered for diversion. The modelling of a pre-sentence diversion pathway is unlikely to have affected the relative costs and benefits of the scenarios modelled, as the majority of costs and benefits have been captured using this approach. A post-sentence diversion pathway would add similar judicial system costs of sentencing to both the residential rehabilitation and incarceration scenario, so would not be expected to change the net difference in costs between the two pathways; however, it would make the real world implementation of a diversion program more costly.

3.2 Pre-sentence diversion programs

There are at least two drug diversion programs¹⁵ that are implemented as early court interventions prior to sentencing defendants who are substance users in Australia: the Magistrates Early Referral into Treatment (MERIT) program; and the Court Referral of Eligible Defendants into Treatment (CREDIT)/bail support program. MERIT operates in New South Wales and Queensland, and CREDIT in Victoria. MERIT and CREDIT are funded under what was previously known as the Illicit Drug Diversion Initiative Agreement, an agreement between the Australian, state and territory governments, although both programs pre-date this agreement (Wundersitz 2007).

Pre-sentence diversion programs are designed to provide assistance for defendants who are substance users and have allegedly committed low- to mid-range offences; that is, as distinct from the arrest referral schemes for minor offences, and the drug courts for offenders who plead guilty for more serious offences. In contrast to 'usual' practice, whereby a defendant's substance use is not addressed while awaiting conviction and sentencing decisions, treatment services are provided to participants in CREDIT and MERIT programs prior to receiving a sentence, while the defendant is on bail.

The CREDIT and MERIT programs share similar objectives, in line with the overall tenets of diversion programs. These relate to:

- reducing substance use during and after the program's completion
- increasing community protection
- focusing on the rehabilitation of the offender
- reducing the likelihood of a sentence involving incarceration
- reducing further offending behaviours and helping participants to become more productive members of the community
- reducing the costs to the health system and justice systems, and
- improving the quality of life for defendants (King et al. 2004; Bolitho et al. 2005).

¹⁵ Other programs include the Court Assessment and Referral Drug Scheme in South Australia, the Court Mandated Diversion in Tasmania, and the Court Alcohol and Drug Assessment Scheme and the Court Treatment Referral Program in the Australian Capital Territory.

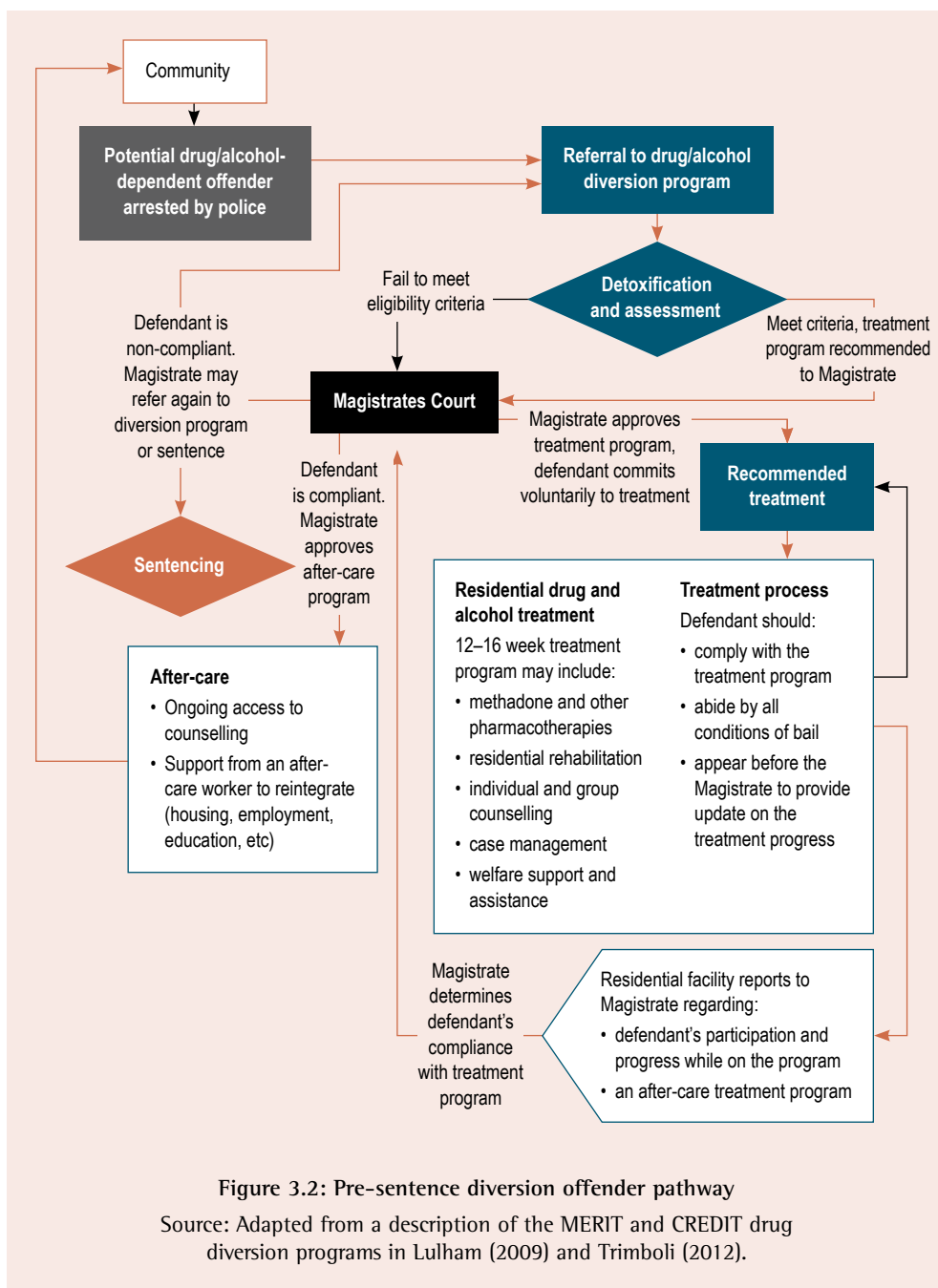


Figure 3.2: Pre-sentence diversion offender pathway

Source: Adapted from a description of the MERIT and CREDIT drug diversion programs in Lulham (2009) and Trimboli (2012).

3.2.1 Process and eligibility

The typical pathways for defendants who consent to be referred to a pre-sentence diversion program, such as MERIT or CREDIT, are shown in Figure 3.2. For a defendant who is successful in the program, the process involves five stages: referral; detoxification and assessment; treatment (involving stabilisation, recovery and rehabilitation); magistrate's determination of compliance; and an after-care program (including assistance with housing, employment, etc). This pathway follows the orange arrows in Figure 3.2.

There is an emphasis to refer defendants who have been identified as potentially eligible for the MERIT or CREDIT programs at the earliest possible opportunity following arrest. Referrals are typically undertaken by legal representatives (including Legal Aid Commission solicitors and the Aboriginal Legal Service), the presiding magistrates, police, the defendants themselves or their family, probation and parole services. Unlike in Drug Courts (see section 3.3), defendants are not required to plead guilty to be referred into the diversion program. As required, a defendant may access detoxification services.

Assessment of the defendant is conducted by a team from the state health department or a non-government organisation (such as a residential substance use treatment facility). Table 3.1 outlines the eligibility criteria for participation in the MERIT and CREDIT programs. It is worth noting that as it is a voluntary 'pre-plea' scheme, the offender must provide written and informed consent to participate in the program.

If a defendant is deemed to be both eligible and suitable for the program, a comprehensive case plan is developed for the defendant, in line with their needs. During the bail period, defendants undertake treatment as required and are case-managed by their MERIT caseworker. Progress reports are provided to the court throughout the process to inform the magistrate of the defendant's progress in treatment.

The magistrate may take a relatively active role in monitoring the defendant during this period, to encourage compliance and emphasise the implications of non-compliance for the defendant (Bolitho et al. 2005). Serious non-compliance with the treatment program may cause the magistrate to end the defendant's participation, withdraw bail or issue a warrant. The matter is then re-listed for hearing. Minor breaches will not result in any action; however, any breaches would be detailed in the interim and final reports to the magistrate, as part of the consideration at sentencing.

At the conclusion of the treatment program, the magistrate is provided with a final report, detailing the participant's commitment and progress during the program, and the recommendations for future treatment. This will inform sentencing in cases where the client has been non-compliant with the treatment program. Options that the magistrate may consider include parole, a community-based sentence or a custodial sentence.

Table 3.1: Eligibility criteria to participate in MERIT and CREDIT programs

Offender's characteristics	MERIT	CREDIT
Age	Adult – 18 years or older	No restriction
Type of offence	<ul style="list-style-type: none"> • Drug-related* offence • Not be charged (currently or outstanding) with strictly indictable (including drug) offences • Not be charged (currently or outstanding) with offences involving allegations of sexual assault or serious violence 	<ul style="list-style-type: none"> • Non-violent offence • Not on a court order with a drug treatment component
Previous offence	No restriction – criminal history (or lack thereof) is not a separate eligibility criterion	First-time offenders or those with some previous criminal and/or drug use history
Substance use status	Demonstrable and treatable drug problem ⁺ (alcohol is also eligible in some courts)	Illicit drug use problem ⁺ , irrespective of stages of drug use
Clinician assessment	To establish: <ul style="list-style-type: none"> • nature of drug problem • history of prior treatment for substance use • general psychosocial history and current circumstances • likelihood of benefit from treatment, and • most appropriate treatment option 	To establish: <ul style="list-style-type: none"> • use of illicit and licit drugs • drug-related health problems • other problematic lifestyle issues • motivation for change • community protection issues, and • treatment interventions
Other criteria	<ul style="list-style-type: none"> • suitable to be released on bail, usually reside where they can participate in treatment programs 	<ul style="list-style-type: none"> • on bail • charged by an officer from a police station that participates in the CREDIT program (i.e. would normally bail the defendant to attend at a court where the program is operating) • not more than two months since the defendant was charged

Note: *do not necessarily 'involve' drugs; ⁺do not need to be dependent

3.3 Residential drug and alcohol treatment

Residential drug and alcohol treatment is one of a range of options considered in diversion programs, including cases where the alternative is prison. A number of considerations, including optimising the clinical decision, the circumstances and willingness of the individual and their family to commit to residential treatment and the willingness of a facility to accept the individual, are important in making this decision. Other options include non-residential treatment, withdrawal services, methadone and other pharmacotherapies (or a combination of these).

Many residential facilities require clients to undergo a detoxification process prior to entering, in order that the residential environment may remain drug-free and focused on stabilisation and rehabilitation (Health Policy Analysis 2005).

Residential treatment facilities differ in terms of models of care and the services that are provided. While there are best practice guidelines for providing treatment (New South Wales Department of Health 2007), the personal nature of problematic drug and alcohol use means that there is no 'one size fits all' approach. Existing facilities have largely arisen from a grassroots level, out of a community's desire to address its particular needs, and under significant budget constraints. This makes it difficult to define a 'typical' residential facility offering drug and alcohol treatment for Indigenous people.

Treatment approaches include: family/community support and involvement; abstinence; cultural support and involvement; harm reduction; controlled drinking; controlled use of other substances; and religious/spiritual support. Some facilities operate as a 'therapeutic community', whereby the residents and staff create a community that sets the agenda for changes among the participants. In addition to services for residents, facilities also frequently provide community outreach drug and alcohol services, including within prisons. Figure 3.3 outlines the process of assessment for entry to the Cyrenian House therapeutic community.

In 2009–10, responses to the Office of Aboriginal and Torres Strait Islander Health (OATSIH) Service Activity Reporting questionnaire indicated that there were 30 facilities providing residential drug and alcohol treatment to Indigenous people.¹⁶ These facilities provided services to 3448 residential clients, 82 per cent of whom were Indigenous people (2816); 79 per cent of the Indigenous clients were male (2221) and 21 per cent female (595). The majority of clients were aged over 18 years, with 11 per cent aged 18 years or under (Australian Institute of Health and Welfare 2011a).

¹⁶ Facilities do not exclude non-Indigenous participants; however, their focus is on addressing the needs of Indigenous people.

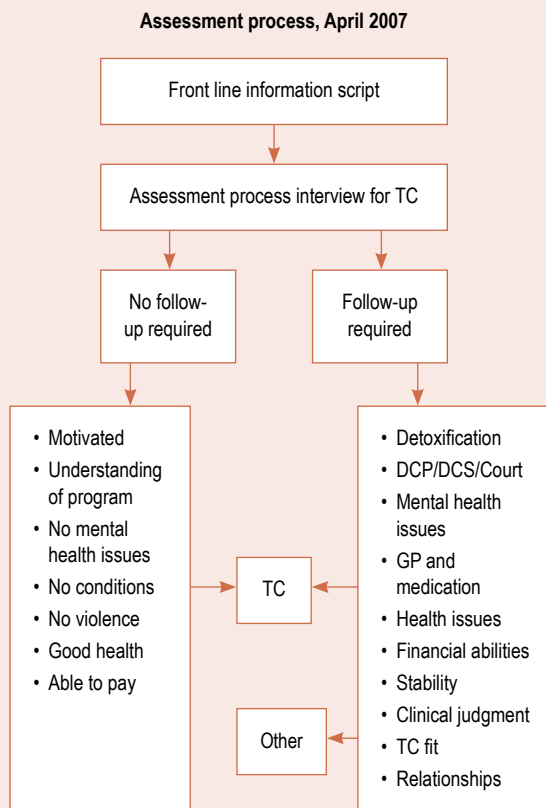


Figure 3.3: Assessment process for admission to a therapeutic community at Cyrenian House

Source: Cyrenian House 2007.

3.4 Drug courts

3.4.1 Process

Drug courts are under the jurisdiction of the Magistrates Courts in New South Wales, Victoria (Dandenong), Queensland, Western Australia (Perth), South Australia and the Northern Territory (known as the 'SMART', Substance Misuse and Referral for Treatment, Court). Although there is no specialised drug court in Tasmania or in the Australian Capital Territory, drug diversion programs operate through their respective Magistrates Courts.

A diagram depicting the typical offender pathway, replicated from Goodall et al. (2008), is shown in Figure 3.4. Once accepted by a drug court, the individual is remanded for detoxification and assessment. A multi-disciplinary team, including case managers, clinical advisers, a dedicated police prosecutor, defence lawyer and specialist community correction officers, assists the Drug Court Magistrate in the assessment and design of treatment plans (Victoria Magistrates Court 2012).

Each individual who is assessed as appropriate for treatment is provided with an individual treatment plan. The length of treatment required varies from up to 12 months in New South Wales to up to two years in Victoria. Following successful completion of treatment, individuals may transition to a facility where they are able to interact more with the community, for example, starting education or employment.

Failure to comply with the plan (e.g. dropping out of a residential treatment program before completion) may result in the individual returning to court and the possibility of a custodial sentence. In addition, if the individual commits any further offences during the period of the treatment order, they may be remanded.

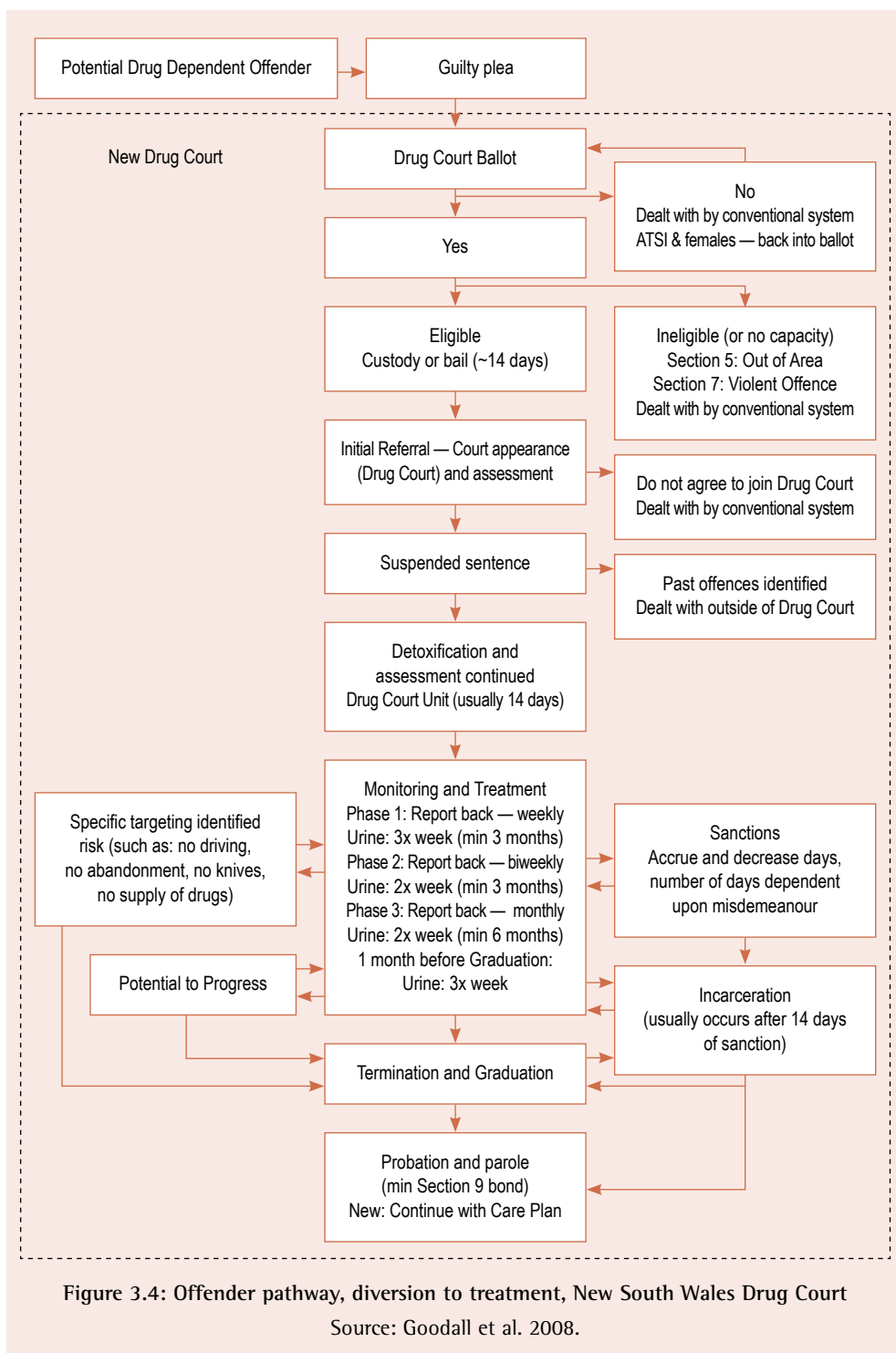


Figure 3.4: Offender pathway, diversion to treatment, New South Wales Drug Court

Source: Goodall et al. 2008.

3.4.2 Eligibility

In order to be eligible for diversion to residential drug treatment by a drug court, individuals must satisfy a number of requirements, set by the courts and the residential treatment facilities themselves. While these vary by jurisdiction, there are a number of commonalities. The following list applies to the Victorian Drug Court, which is a specialist jurisdiction of the Magistrates Court:

- The individual must not be subject to a Parole Order, Combined Custody and Treatment Order or a Sentencing Order of the County or Supreme Court.
- The individual must plead guilty to their charges and satisfy the court that they are dependent on drugs or alcohol and that this dependency contributed to committing their offending.
- The offence must be within the jurisdiction of the Magistrates Court and punishable upon conviction by imprisonment.
- The offence must not be a sexual offence or a violent offence.
- Upon an offender's conviction, the Drug Court considers that a sentence of imprisonment is appropriate (and the Magistrates Court would not have considered a non-custodial sentence appropriate), and
- The individual is willing to consent, in writing, to the Drug Treatment Order (which has been set by the multidisciplinary team).

Adding to these conditions are those imposed by the residential treatment facilities. These typically include that the individual:

- must not be taking any drugs (some facilities prohibit methadone and may therefore not be suitable for individuals who have heroin use problems — for the purposes of this study, it is assumed that it is possible for facilities to take people with heroin use problems)
- must be considered suitable by the facility
- must not cause the mix of residents in the facility to pass certain thresholds in the mix of offenders and non-offenders, men and women, as determined by the facility (where relevant).

3.5 Indigenous participation in diversion programs

A number of studies have suggested that Indigenous over-representation in prison populations could be addressed through additional and more effective diversion programs (Allard et al. 2010).

The Alcohol and Other Drugs data cubes (AODT–NMDS), maintained by the Australian Institute of Health and Welfare, reported 2409 closed episodes of Indigenous people in drug and alcohol treatment facilities referred through court diversion in 2009–10. Out of a total 17 589 referrals from court diversion, 13.7 per cent were Indigenous, which is far lower than the proportion of people incarcerated who are Indigenous (approximately 26 per cent according to the Australian Bureau of Statistics (2011a)). Six hundred and three of these were Indigenous women (25.0%) and 1805 were Indigenous men (75.0%). It is important to note that the AODT–NMDS data exclude a number of Indigenous-specific services and do not relate only to residential facilities.¹⁷

The eligibility criteria for diversion programs, in particular, have been highlighted as a barrier to entry for Indigenous people. Joudo (2008) suggests that this is because Indigenous offenders are:

- less likely to make an admission of guilt to police
- more likely to have multiple charges
- more likely to have previous criminal convictions (particularly for violent offences)
- more likely to have drug misuse problems that are not covered by the drug diversion programs (such as alcohol and inhalants), and
- more likely to have a co-existing mental illness.

Indigenous people may also be located in a remote community, and therefore find it difficult to access treatment programs. Moreover, the qualitative evidence gathered during the evaluation exercise for the Illicit Drugs Diversion Initiative (IDDI) suggested that Indigenous people were particularly disadvantaged due to stringent exclusion criteria (Australian Institute of Health and Welfare 2008). The exclusion under the IDDI framework of offenders who have alcohol as a primary drug of concern or who have any history of violent offences was widely viewed as having a disproportionately negative impact on Indigenous communities. A number of recently implemented Indigenous-specific court diversion programs have largely addressed these and a range of other identified barriers to Indigenous participation. However, the availability of suitable treatment options for Indigenous offenders, particularly in remote and very remote areas, remained a major obstacle (Australian Institute of Health and Welfare 2008).

¹⁷ The Australian Institute of Health and Welfare advises that the number of Indigenous clients may be under-counted as most Australian Government-funded Indigenous substance-use services and Aboriginal health services that provide treatment for alcohol and other drug problems do not supply data under the AODT–NMDS. In addition, at the national level a substantial percentage of clients did not state their Indigenous status (varying from 5 per cent to 8 per cent over time).

Compounding this may be a lack of funded places in culturally appropriate residential treatment, such that current availability may not be sufficient to address the need in the community. In 2009–10, 73 per cent of residential treatment and rehabilitation services providing services to Indigenous clients had a waiting list, with 55 per cent having a waiting list with 10 or more people on it (Australian Institute of Health and Welfare 2011b).

Bartels (2010) highlighted the need to provide diversion programs specific for Indigenous women, citing examples in New Zealand and Canada of such programs, noting that none was available in Australia.

Residential treatment facilities for Indigenous and non-Indigenous clients and others operating in the diversion process who were consulted during the project reported that demand for places in residential facilities exceeds supply. This relates to funding for places as well as access to medical practitioners, counsellors and other specialised staff.

Overall, stakeholders consulted through this study conveyed that the government's approach to funding residential treatment facilities was piecemeal, based on grants and with no guarantees of ongoing funding availability, leading to a challenging environment to operate a continuing service. Additionally, staff are not readily available in the labour market and it is not possible to attract clinicians to provide salaried services to facilities, due to funding constraints.

It has been noted that effective and culturally appropriate drug diversion has the ability to reduce the over-representation of Indigenous people in the criminal justice system and to decrease over-representation in custody (Cain 2006).

4. Defining the target population, intervention and comparator

The target population, and the two scenarios being compared, are defined in this chapter. The scenarios are as follows:

- The status quo scenario is incarceration with limited treatment provided in prison.
- The alternative scenario is diversion of offenders to a residential treatment facility.

4.1 Target population

The target population for intervention is defined through a set of generalised eligibility criteria, based on the existing diversion programs operating in every state and territory. The following is based on generalised eligibility criteria for diversion with the final criterion added in order that the comparison with a term in prison/detention may be made.

- The offender can be a juvenile or an adult.
- The offence must be a criminal matter.
- Drug or alcohol dependency must be a factor in committing the offence.
- The offender must have been found guilty of the offence.
- The offender must not have (ever) committed a violent or sexual offence.
- The offender must be facing a custodial sentence.

It is important to emphasise that there is no 'one size fits all' approach for treatment for drug and alcohol issues. There are many factors that influence the choice of treatment, and the appropriateness of diversion, which it is not possible to determine accurately from analysis of the available data. A broad approximation of the number of Indigenous people who may benefit from diversion is provided in chapter 2.

4.2 The status quo scenario: incarceration with limited treatment

The status quo is not easily defined. As described in chapter 3, a number of diversion programs currently operate in Australia and are available to Indigenous people in a statutory sense. However, there are substantial differences in access to diversion programs between the states and territories, particularly for Indigenous people, and differences in the models used to deliver programs. A summary is provided in Table 4.1.

The intention of this analysis is to capture the status quo for the majority of Indigenous prisoners. As noted in section 3.5, the proportion of Indigenous people gaining access to diversion programs is considerably less than the proportion of Indigenous people in incarceration, and a number of barriers to access to diversion programs for Indigenous people have been identified. The focus of this study is on those individuals who face incarceration, but who would be appropriate for diversion to residential drug treatment. That is, the people who meet the generalised eligibility criteria for pre-sentence diversion, but who are currently incarcerated rather than diverted.¹⁸ The ‘status quo’ option is defined in this context.

For those Indigenous offenders who are incarcerated, access to drug and alcohol programs in prison will vary according to the jurisdiction in which they reside and the prison in which they are incarcerated (e.g. maximum versus minimum security), and potentially their expected sentence length. The range of drug and alcohol programs that are available in prisons across Australia can be seen in Table 4.1. Access to some of the drug and alcohol treatment programs is generally determined on an assessment of individual needs, so it is difficult to determine what type of treatment non-violent Indigenous offenders would most commonly be able to access. For the purposes of this analysis, we have assumed a ‘best case’ scenario where Indigenous offenders are able to access drug-free units.

The ‘status quo’ scenario involves a 12-month period of incarceration for Indigenous non-violent offenders who meet the generalised eligibility criteria (the ‘target population’, see section 4.1) for pre-sentence diversion to a residential treatment facility. We have conservatively assumed that this period of incarceration would include drug and alcohol treatment in prison-based drug-free units. This is conservative as it is likely to overstate the intensity of the drug or alcohol treatment that prisoners are most commonly able to access, and therefore may understate the likelihood of drug and alcohol relapse following release from prison.

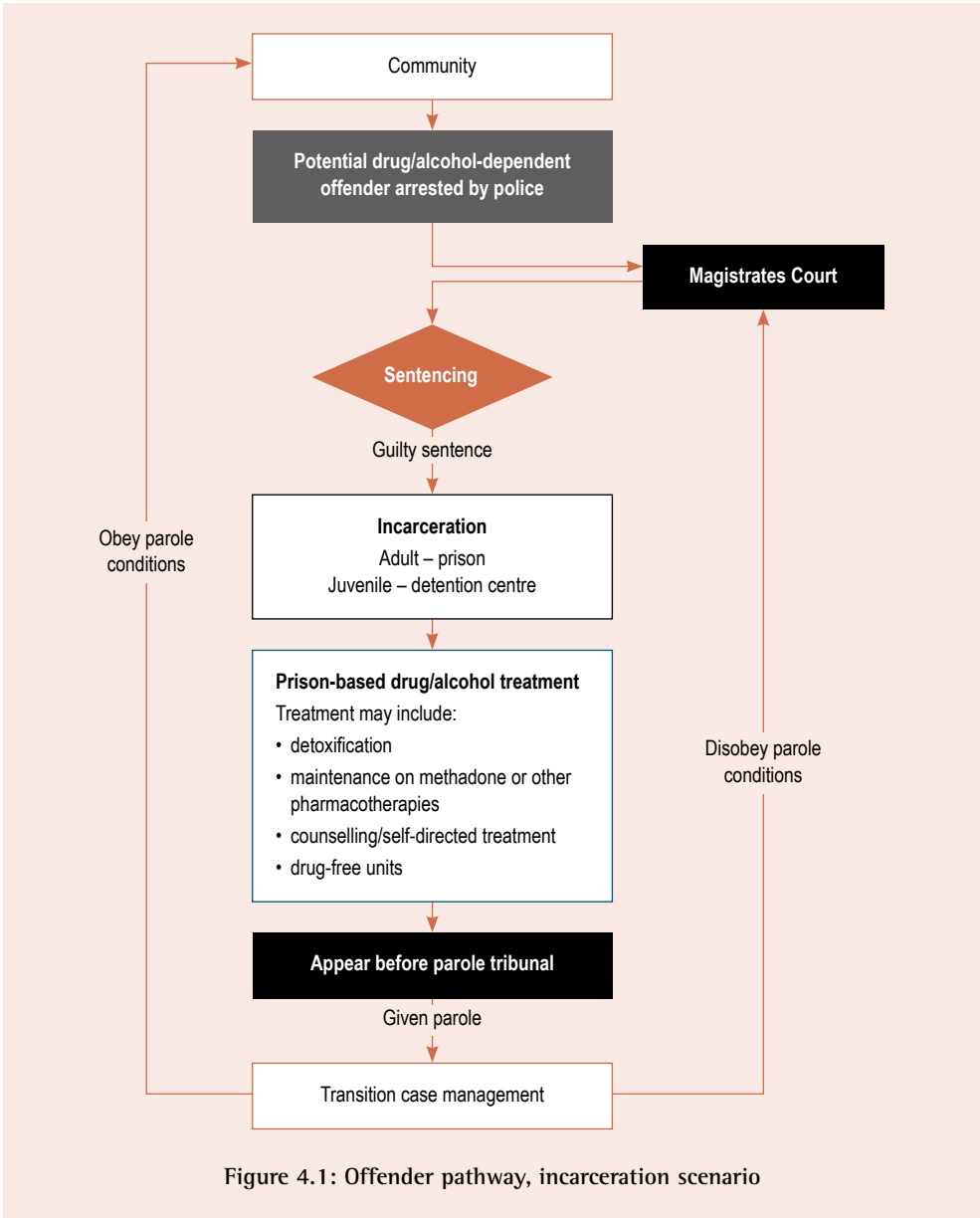
¹⁸ Note this is from the perspective of the criteria and data availability, i.e. it does not take account of people who may not be suitable for diversion to residential treatment for other reasons, e.g. comorbid mental health issues.

Table 4.1: Drug treatment provided in prisons across states and territories

State/ territory	Detoxification	Pharmacotherapies (methadone and buprenorphine)	Counselling / groups	Drug-free units
NSW	Provided to 36% of prisoners (2008–09)	For maintenance, not detoxification	168 drug/alcohol- specific programs; 4666 prisoners engaged (2008–09)	Three operating within prisons (2008–09), offering intense treatment
QLD	Provided	Not offered (2009)	Programs include self-directed Getting SMART and Pathways (Cognitive Behaviour Therapy)	No information was available
VIC	Provided	Provided on a limited basis (maintenance, not detoxification)	Programs across levels: <ul style="list-style-type: none"> • harm reduction • brief intervention • 12–24 hours of cognitive behavioural therapy, and • 24–40 hours of non-residential drug treatment and/or 24-hour alcohol- only programs for patients/ clients classified as moderate intensity (psychological and physiological dependence and moderate to high risk of re-offending) 	Residential treatment, including one therapeutic community

State/ territory	Detoxification	Pharmacotherapies (methadone and buprenorphine)	Counselling / groups	Drug-free units
WA	Provided to 947 (12%) of prisoners (2009)	Provided on a limited basis (maintenance, not detoxification)	Drug and Alcohol Through-care Services (DATS); Pathways; Brief Intervention Service; and Indigenous Men Managing Anger and Substance Use (IMMASU); inreach services from external providers as well as prison-delivered services	Drug-free units were available at Wooroloo, Albany, Bandyup and Acacia prisons
SA	Provided	Provided for detoxification and maintenance	Programs ranged from low (<24 hours) to high intensity (100+ hours) as well as Indigenous-specific programs	Operating at two prisons – Cadell and Port Augusta
NT	Provided	Provided for detoxification and maintenance	No publicly available data were identified	No drug-free units were in operation as at June 2011
TAS	Provided	Provided on a limited basis for detoxification and maintenance	Programs include self-directed Getting SMART and Pathways (Cognitive Behaviour Therapy)	There were no drug-free units operating
ACT	Provided	Provided for detoxification and maintenance (methadone only)	Various programs from internal and external providers	Therapeutic community provided (Solaris)

Source: Rodas et al. 2011.



4.3 The alternative scenario: diversion to residential treatment

The ‘diversion’ scenario is similar to the pre-sentence diversion programs described in section 3.2. The diversion program provides a process and model of treatment that is culturally appropriate to Indigenous people and follows ‘best practice’ residential care for people with substance abuse issues. It also takes into account the optimal model of service delivery from the provider perspective.

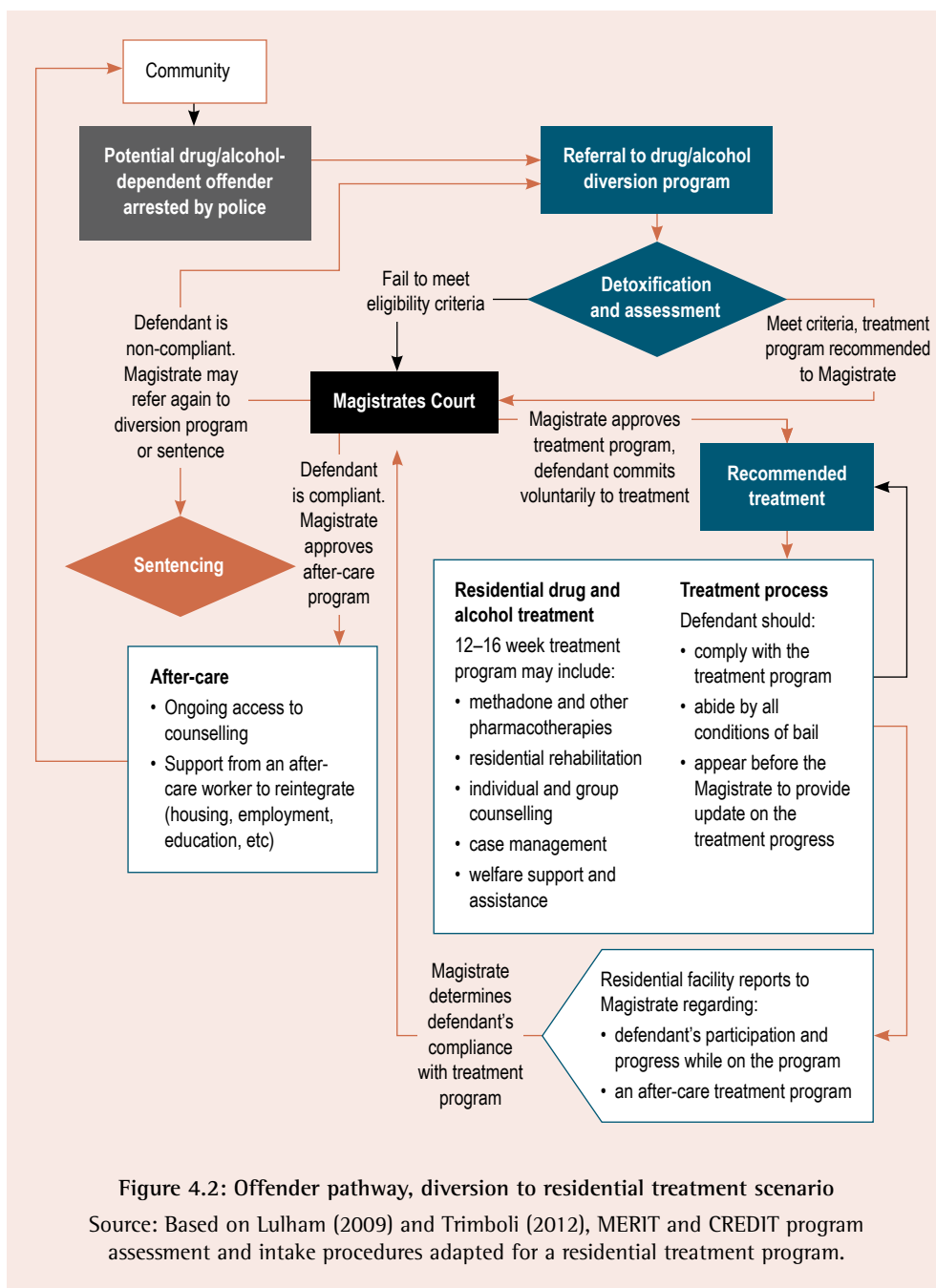


Figure 4.2: Offender pathway, diversion to residential treatment scenario

Source: Based on Lulham (2009) and Trimboli (2012), MERIT and CREDIT program assessment and intake procedures adapted for a residential treatment program.

5. The impact and implications of incarceration versus residential treatment

This chapter explores some of the impacts of residential treatment compared with incarceration, including the likelihood of recidivism.

5.1 Impact of diversion programs

Weatherburn et al. (2008) evaluated the outcomes for Drug Court participants in New South Wales Drug Courts in south and south-western Sydney. The study controlled for convictions for prior violence, address, age, gender, Indigenous status, principal offence, number of concurrent offences, and total number of prior convictions. Outcomes were compared for three groups:

- participants in the Drug Court program who successfully completed the program of treatment
- participants in the Drug Court program who did not complete the program, and
- a comparator group of those who were eligible for the Drug Court program but were excluded due to residing outside the Drug Court's jurisdiction or because they had been convicted of a violent offence.

Those who were referred to the Drug Court program (whether they completed it successfully or not) demonstrated a number of favourable outcomes in relation to the comparator group during the follow-up period:

- overall, 17 per cent less likely to be reconvicted of an offence than the comparator population
- 30 per cent less likely to be reconvicted of an offence against the person than the comparator population, and
- 38 per cent less likely to be reconvicted of a drug offence than the comparator population.

Outcomes in relation to property offending were not statistically significant. The results were stronger for the Drug Court program completer group, who were 37 per cent less likely than the comparator group to be reconvicted of any offence at any point during the follow-up period.

The Weatherburn et al. (2008) results reflected an improvement in the outcomes of the New South Wales Drug Court since the first evaluation, conducted in 2002 (Lind et al. 2002), which showed only a statistically significant difference in likelihood of reconviction of a drug offence.

The MERIT program in New South Wales refers individuals to drug treatment, including residential treatment, for three months. Lulham (2009) conducted an evaluation of the program. Twenty per cent of the sample was Indigenous, and 20 per cent was female. The program

focuses only on adults with an illicit drug problem. Findings included a significant reduction in the re-offending rate for theft of 4 per cent, and for any type of offence by 12 per cent (among a cohort of more than 2000 participants), over the period July 2002 to June 2005.

Alberti et al. (2004) evaluated the Drug Court pilot program in Victoria, where participants were diverted from incarceration to carry out a Drug Treatment Order (DTO). It should be noted that this study was limited by the small sample size, and outcome data from participants were limited to the stabilisation phase of the Drug Court program, and therefore the findings do not represent post-completion outcomes. The study estimated that approximately 72 per cent of participants would be convicted of a subsequent offence within 12 months after commencement of their DTOs for a total of 365 offences per 100 participants in that period. Unemployment decreased from 86 per cent at baseline to 54 per cent at six months. Full-time employment increased from 11 per cent to 25 per cent at six months, and there was an increased proportion of people living alone or with a partner or spouse at six months, compared to parents or friends, than at baseline. Fifty per cent were in drug treatment programs at baseline, 79 per cent at three months, and 68 per cent at six months. Methadone and buprenorphine were most common. Seventy-nine per cent were charged with further offences during the six-month period. At six months, 46 per cent had spent time in prison for an average of 15 days as part of their DTO sanctions.

An evaluation of an alcohol diversion program in Queensland in 2010 demonstrated reductions in frequency of offending, across all offences, as well as alcohol-related offences. There were also reductions in the seriousness of offending. The sample included 41 completers and 68 participants in the program, with no comparator group defined. Follow-up to determine re-offending rates was limited to six months post-completion (Queensland Police Service 2010).

A review of the three Drug Courts in south-east Queensland and two in north Queensland (Payne 2008) found that Indigenous people made up 10–11 per cent of Drug Court participants. The author considered that the number of referrals of Indigenous offenders to the Drug Court program in Queensland was low, despite efforts to increase participation among Indigenous people. Key findings of the evaluation include:

- 59 per cent of graduates had been reconvicted of a new offence within two years (on average after 379 days)
- 77 per cent of non-graduates had been reconvicted within two years of their release from prison (on average after 139 days)
- graduates committed an average of 0.61 offences every six months after their graduation, down by 80 per cent when compared to the 12 months prior to their entry into the drug court program, and
- non-graduates committed an average of 1.38 offences every six months after being released from prison – 63 per cent lower than their rate of offending in the 12 months prior to Drug Court participation.

Indigenous offenders were equally likely as non-Indigenous offenders to withdraw from the program after all other factors were controlled.

5.2 Impact of incarceration

As noted in section 2.1, Indigenous people are over-represented in prisons, with 26 per cent of prisoners being Indigenous (Australian Bureau of Statistics 2011a) compared to 2.5 per cent of the general population (Australian Bureau of Statistics 2011b). There is evidence that prisoners with multiple terms of incarceration are more likely to return to prison (Holland et al. 2007), and are more likely to be Indigenous (Australian Bureau of Statistics 2010a; Rawnsley 2003). Rawnsley (2003) described the potential paths of recidivism and repeat imprisonment observed in the ABS prisoner census in Figure 5.1, and highlighted that repeated involvement in criminal activity is not always detected. Recidivism rates reported in research tend to be measured through incidents of reconviction or re-imprisonment.

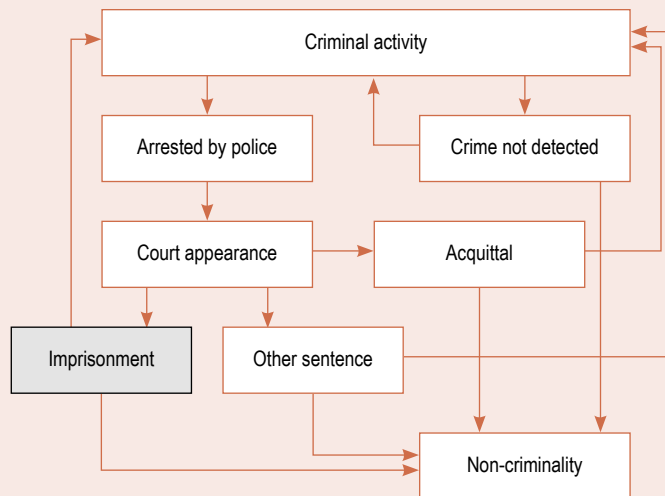


Figure 5.1: Potential pathways for prisoners observed in the Prisoner Census

Source: Rawnsley (2003).

Increasing the likelihood of re-imprisonment is one of the most costly risks to society of incarceration. A recent Victorian study found that 35 per cent of those who have been imprisoned will return to prison within the first two years of release, while Indigenous prisoners had significantly higher rates of re-imprisonment, with 50 per cent returning to prison within two years (Holland et al. 2007), indicating that the incarceration of Indigenous prisoners is likely to be associated with significant future costs to society.

As well as being at greater risk of re-imprisonment, those who are incarcerated also face higher risks of morbidity and mortality compared to the general population. Imprisonment is an independent risk factor for the contraction of hepatitis C among intravenous drug users (van Beek et al. 1998). This is particularly concerning in light of evidence that 55 per cent of all prison entrants report a history of injecting drug use (Butler & Papanastasiou 2008), while 46 per cent of Indigenous men and 50 per cent of Indigenous women in prison report a history of intravenous drug use (Indig et al. 2010). A recent study by Teutsch et al. (2010) examined the incidence (number of newly arising cases) of hepatitis C among 488 New South Wales prisoners who had a documented negative anti-hepatitis C antibody test result within the previous 12 months, and who had a history of intravenous drug use. Adult prison inmates were recruited from September 2005 to May 2009. Analysis of the enrolment blood samples identified 94 HCV incident cases (19% of the cohort). Taking into account time in prison and other factors, the overall incidence rate was 31.6 per 100 person years, while the incident rate for those who had been continuously imprisoned over the period was 22.6 per 100 person years.

Mortality rates amongst ex-prisoners have been recognised to be alarmingly high, particularly within the first few weeks of release (Kinner et al. 2010), with Indigenous ex-prisoners having significantly higher rates of mortality than non-Indigenous ex-prisoners (Kinner et al. 2011). A significant proportion of these deaths tend to be drug-related (Kinner et al. 2011; Hobbs et al. 2006) or due to injury or poisoning, including suicide (Hobbs et al. 2006). A study by Hobbs et al. (2006) used data linkage to examine mortality for a cohort of ex-prisoners in Western Australia over a mean period of approximately five years, and found standardised mortality ratios (SMRs) for male Indigenous ex-prisoners of between 1.23 to 1.50 (for 20–39 year olds and 40–59 year olds respectively) and for Indigenous female ex-prisoners of between 1.79 to 2.25 (for 20–39 year olds and 40–59 year olds respectively). These mortality ratios were standardised according to the mortality rates of the respective Western Australian Indigenous populations. When deaths in Indigenous male and female ex-prisoners were compared to the general population, the SMR increased to 5.12–6.20, and 8.40–9.13, for male and female ex-prisoners respectively.

The study by Hobbs et al. (2006) also examined mental health service usage by ex-prisoners and compared this to their usage prior to incarceration. Changes in mental health service usage from pre- to post-imprisonment provides an indication of the additional mental health risk that prison can confer, effectively accounting for the influence of prior mental health status, with the limitation that age-related incidence or other potential confounders are not able to be controlled for. This study found a mean increase in the mental health outpatient visits from pre- to post-incarceration of 1.68 for Indigenous female ex-prisoners and 1.53 for Indigenous male ex-prisoners. The study also found increases in admission to general hospitals from pre- to post-incarceration for Indigenous male and female prisoners, and a very small reduction in admission to mental hospitals.

6. Costs of incarceration versus residential treatment

6.1 Introduction

Funding for prisons and juvenile detention centres is the responsibility of state and territory governments.

Residential treatment facilities providing services to Indigenous clients are typically funded from three main sources:

- state/territory governments (through Health/Human Services Departments, Corrective Services Departments and Education Departments)
- Australian Government (through the Office of Aboriginal and Torres Strait Islander Health, Department of Health and Ageing, Department of Families, Housing, Communities and Indigenous Affairs, and Aboriginal Hostels Limited), and
- client contributions, donations and community grants.

The services provided to individuals under the two scenarios (incarceration with limited treatment and diversion to residential treatment) are described in chapter 4.

6.2 Incarceration with limited treatment

6.2.1 Recent government expenditure on prisons

In 2010–11, more than \$3 billion was spent on Australian prisons – \$2.3 billion in net operating expenditure (excluding revenue from prison industries and excluding transport/escort services) and \$0.8 billion in capital costs (Steering Committee for the Review of Government Service Provision 2012).

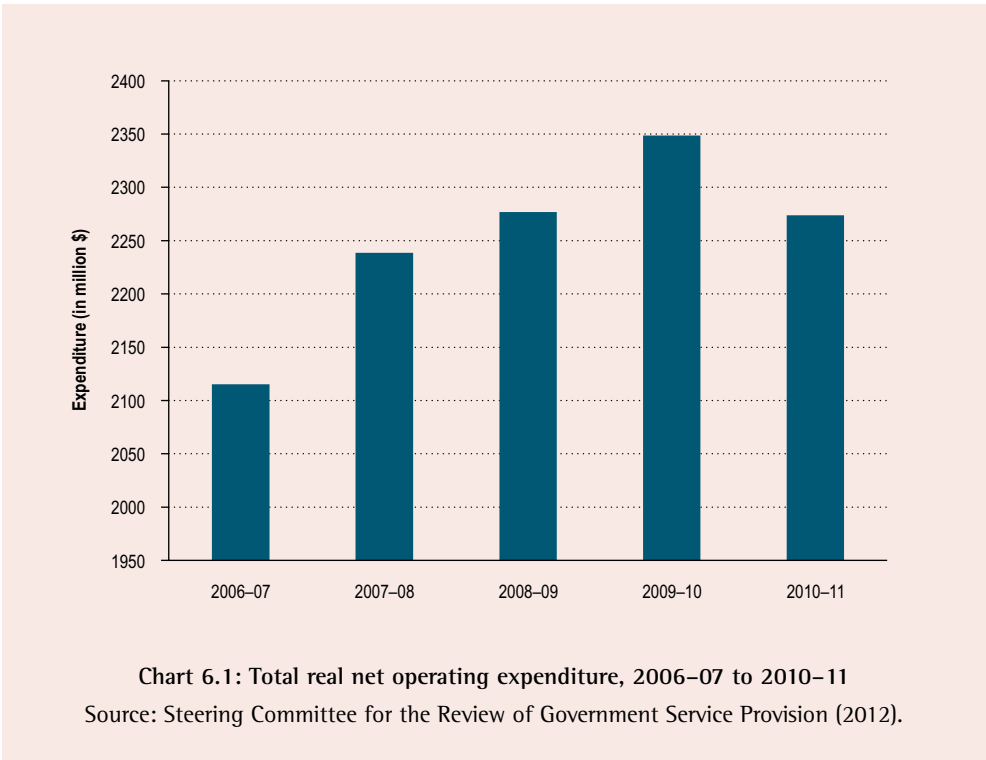
6.2.1.1 Net operating expenditure

Real net operating expenditure for prisons is based on the data from the annual Report on Government Services (ROGS), over 2006–07 to 2010–11 for each of the states and territories as well as the Australian Government as a whole (Steering Committee for the Review of Government Service Provision 2012). As stated in Steering Committee for the Review of Government Service Provision (SCRGSP) (2012), operating expenditure is defined in the following box.

‘Operating expenditure’ is expenditure of an ongoing nature incurred by government in the delivery of corrective services, including salaries and expenses in the nature of salary, other operating expenses incurred directly by corrective services, grants and subsidies to external organisations for the delivery of services, and expenses for corporate support functions allocated to corrective services by a broader central department or by a ‘shared services agency’, but excluding payroll tax.

The real net operating expenditure is therefore operating expenditure net of operating revenue (i.e. revenue from ordinary activities undertaken by corrective services, such as prison industries) deflated using a gross domestic product deflator (Steering Committee for the Review of Government Service Provision 2012).

Chart 6.1 depicts the total real net operating expenditure spent nationally between 2006–07 and 2010–11.



Note: The base year is 2010–11.

Total expenditure reached a peak of around \$2349 million in 2009–10 but declined to approximately \$2274 million in 2010–11. This represented a fall of 3.18 per cent. On average, however, between 2006–07 and 2010–11, total real net operating expenditure grew at a rate of 1.88 per cent per annum.

One of the primary contributors that led to a fall in expenditure in 2010–11 was a fall in New South Wales Government expenditure. Chart 6.2 shows real net operating expenditure across states and territories during the same period. New South Wales clearly dominated as the highest spender in Australia. This was due to the fact that New South Wales was responsible for managing the largest correctional system in Australia. In 2010–11, the New South Wales daily average prison population was 10 094, almost double that of any other state or territory (Steering Committee for the Review of Government Service Provision 2012). Consequently, it is not surprising that a fall in the operating expenditure by New South Wales (Chart 6.2) resulted in a fall in the overall expenditure in Australia as a whole (see Chart 6.1) in 2010–11.

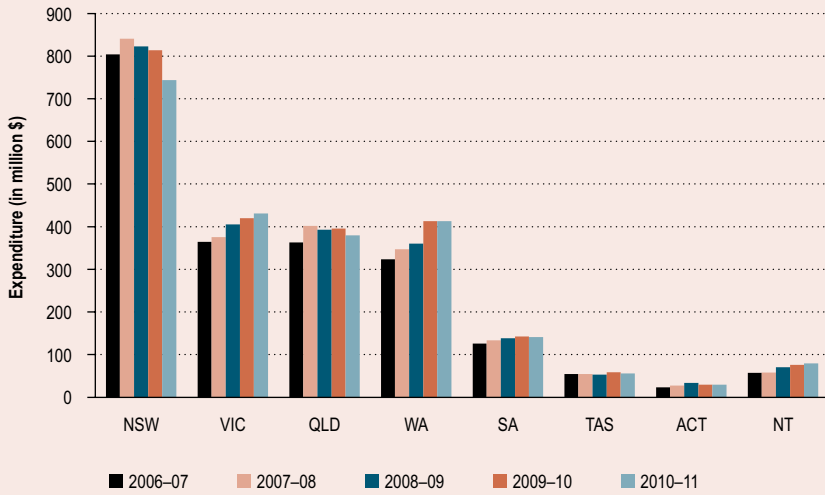


Chart 6.2: Real net operating expenditure by states and territories, 2006–07 to 2010–11

Source: Steering Committee for the Review of Government Service Provision (2012).

As highlighted in the ROGS 2012 report, a number of the workplace initiatives such as the introduction of casual correctional officers, a centralised staff rostering system and correctional centre management plans have contributed to the decline in spending by New South Wales (Steering Committee for the Review of Government Service Provision 2012).

For the rest of the states and territories, the trends in the net operating expenditure appear to be either stable or rising. The other exception was Queensland, which also saw a dip in its real net operating expenditure in 2010–11.

Overall, it is uncertain what the future trend would be, given the mixed trends shown in Chart 6.2.

6.2.1.2 Capital costs

The capital costs for prisons in the ROGS 2012 report comprise a user cost of capital (calculated as 8 per cent of the value of government assets), depreciation, and debt service fees, where applicable.

The Australian Capital Territory had the highest capital cost per prisoner at around \$288 and \$197 in 2009–10 and 2010–11 respectively (Steering Committee for the Review of Government Service Provision 2011; 2012). These costs are more than double New South Wales capital costs per prisoner during the same time period (\$73 in 2009–11 and \$77 in 2010–11).

To a large extent, the capital costs depend on the activities, especially in relation to the construction of new facilities and refurbishment of existing ones, undertaken by each state and territory. To illustrate the upfront investment required in prisons, expenditure by the New South Wales and South Australian governments is reported:

- In New South Wales, a new 500-bed South Coast Correctional Centre was officially opened on 12 November 2010 with the first inmates arriving on 7 December (Steering Committee for the Review of Government Service Provision 2012). This \$155 million facility was part of the major capital works program in New South Wales (New South Wales Treasury 2011).
- In South Australia, a new 36-bed unit for low security prisoners at Port Lincoln Prison incorporating special designed accommodation for aged and infirmed offenders has been commissioned (Steering Committee for the Review of Government Service Provision 2012). The cost of constructing this unit was estimated to be around \$4.7 million (South Australia Department of Correctional Services 2010).
- In the Northern Territory, the Barkly Work Camp opened on 23 May 2011 and would be able to accommodate up to 50 low-security prisoners who have two years or less to serve of their sentence.

6.2.2 Cost per prisoner per day

Per prisoner per day costs are drawn from the Steering Committee for the Review of Government Service Provision (2012) and include net operating expenditure and capital expenditure per prisoner.¹⁹ The SCRGSP costs were adjusted so as to include transport and escort service expenditure in the estimates per prisoner per day.

To estimate the cost per prisoner for each state and territory for 2012–13, data for 2010–11 (latest available) was inflated using the Consumer Price Index (CPI) (Australian Bureau of Statistics 2012). Chart 6.3 presents the net operating expenditure, capital costs and expenses relating to transport and escort services per prisoner per day for 2012–13.

On average, in 2012–13, the cost per prisoner per day was \$315 in Australia. The Australian Capital Territory had the highest cost per prisoner per day (more than \$500) as illustrated in Table 6.1 and Chart 6.3.

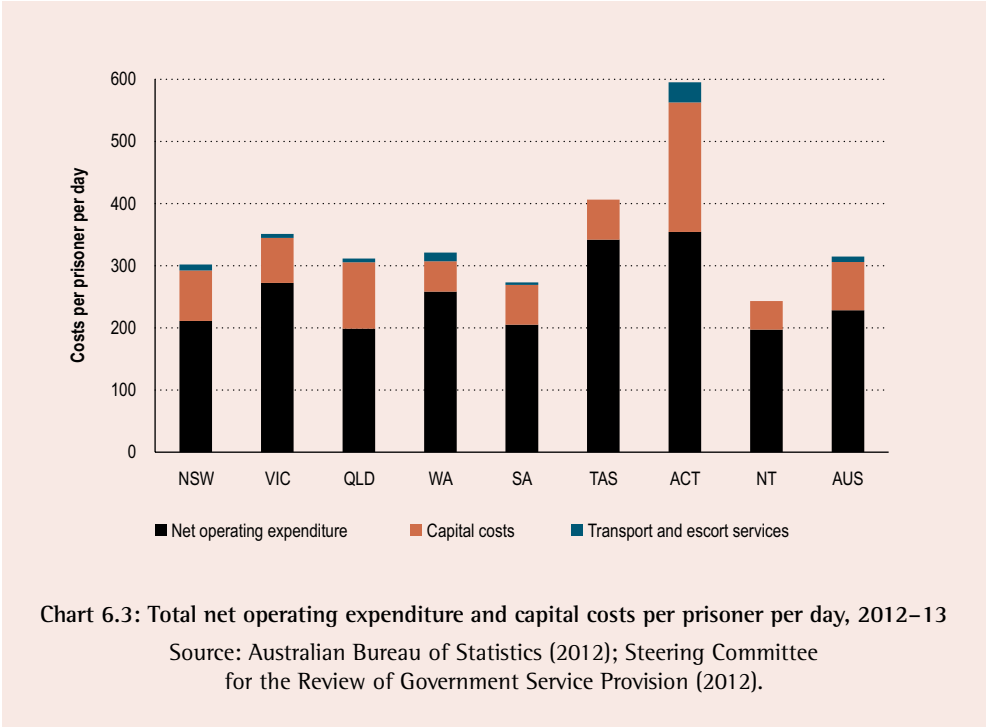
Table 6.1: Net operating expenditure, capital costs and transport and escort service costs per prisoner per day, 2012–13

State/territory	Net operating expenditure	Capital costs	Transport and escort services	Total
NSW	211.2	81.1	9.9	302.1
VIC	272.5	72.3	6.6	351.4
QLD	198.9	106.8	5.7	311.4
WA	258.4	48.7	14.3	321.3
SA	205.4	63.7	4.1	273.1
TAS	341.9	64.6	0.0	406.5
ACT	354.5	208.1	32.6	595.2
NT	197.2	46.0	0.0	243.2
Australia	228.6	77.6	8.5	314.6

Source: Steering Committee for the Review of Government Service Provision (2012).

¹⁹ Net operating expenditure is defined as the daily cost of managing a prisoner, based on operating expenditure net of operating revenues divided by (i) the number of days spent in prison or detention by the daily average prisoner populations, and (ii) the daily average periodic detention population on a 2/7th basis.

Capital expenditure per prisoner is defined as the daily cost per prisoner based on the user cost of capital (calculated as 8 per cent of the value of government assets, depreciation, and debt servicing fees for privately owned facilities).



Note: No data on transport and escort services were available for Tasmania or the Northern Territory.

6.3 Diversion and residential treatment

6.3.1 Estimation of costs

The costs of residential treatment have been estimated from analysis of annual reports and consultations with residential facilities that provide services tailored to Indigenous clients, as well as two previous costing studies, by Shanahan et al. (2003) and Health Policy Analysis (2005). The costs of a residential treatment service are variable depending on the treatment model employed, but may include: assessment and detoxification; a 12-week residential treatment program; a further 12-week period spent in a halfway house; and support through an after-care program for up to one year following admission. These costs are rolled into two estimates – capital costs and operating costs – as no data were available to provide disaggregated costs at each stage.

Costs are estimated on a per client per day basis, in order to make comparisons with the costs of prison discussed in section 6.2.2. The scope of this cost-benefit analysis is limited to residential treatment for drug and alcohol use provided by community-controlled organisations, which address the needs of and are culturally appropriate for Indigenous clients. The facilities being considered are funded from a range of sources; however, they are dependent upon government funding at both the state/territory and Australian Government levels. This funding is typically provided through a range of programs at each level, frequently from more than one government department, and none of which is dedicated specifically to residential drug and alcohol treatment. As such, it was not possible to draw on data similar to the ROGS to estimate the costs of providing residential treatment. The analysis in this section therefore focuses on case studies of several facilities. These facilities were consulted directly and analysis was performed on their annual reports.

There are some additional costs to the justice system to operate the diversion program, in particular in the eligibility assessment and ongoing monitoring of defendants (case management is provided by the residential facility).

6.3.2 Costs of assessment and detoxification

Assessment and detoxification costs borne by the justice system are assumed to be similar for both pathways and have therefore not been included in the estimate of either incarceration costs or the costs of diversion to residential treatment. The cost of detoxification was estimated by Shanahan et al. (2003), at a mean of \$1142 per client which, inflated based on CPI, gives \$1444 per client. This was based on the sample of 180 detoxifications prior to entering the residential rehabilitation unit. Out of this sample of 180, 95 (53%) were on an inpatient basis, 19 (11%) were on an outpatient basis and the remaining (66, 36%) did not undergo any detoxification, as indicated in Shanahan et al. (2003).

Assessment costs accruing to the residential facility are included in the overall operating expenditure presented in section 6.3.3.

6.3.3 Costs during the residential treatment program, halfway house and after-care

6.3.3.1 Capital costs

As in ROGS cost data for prisons, capital costs include: the user cost of capital (calculated as 8 per cent of the value of the facility's assets) and depreciation.²⁰ Capital expenditure in 2010–11 for the facilities consulted ranged from \$17 to \$52 per bed day, under different treatment models and residential service arrangements. The higher estimate reflected a facility that provided a service to women and which allowed their children to live with them in a semi-independent environment, as distinct from a shared house. The lower estimate reflected a facility that had no halfway house available. Mean capital expenditure was \$28 per bed day, and median \$22 per bed day in 2010–11.

Expenditure per client was, on average, \$1698, in 2010–11. Inflating this to 2012–13 gives \$1798 per client.

²⁰ Debt servicing fees are excluded to avoid double counting, as the value of privately held assets is included in the user cost of capital.

There is ongoing debate as to whether or not land should be included in the capital cost estimates for residential facilities (Access Economics 2009; Deloitte Access Economics 2011). One side contends that the land's value will appreciate and therefore its cost needs to be recovered through revenues. However, land contributes to the cost of accommodation, which is essentially reflected as an opportunity cost (i.e. if it were not being used for accommodation, the land could be used for other purposes or sold).

A model that includes the cost of land in determining the cost of accommodation should also include the expected return on land. However, financial institutions may be more inclined to consider provider earnings and management capabilities when evaluating whether to provide commercial debt to a residential treatment service provider.

The little weight given to the value of land by financial institutions means any increase in the value of land held by a service provider is not readily accessible. Furthermore, most providers are likely to offer accommodation in perpetuity, and therefore the capacity to realise any increase in land value through its sale is limited. This means any expected return on land to the provider is minimal, even though the value of land may increase.

In order that the capital cost estimates for residential facilities may be appropriately compared with prison costs, as reported in the ROGS, the value of any land assets held by facilities is included in the estimate of user cost of capital (8 per cent of total value of assets).

Capital expenditure for new purpose-built facilities for providing best practice care may be more costly than existing facilities.

- Construction costs for a new 24-bed facility in the Northern Territory are estimated at \$3.5 million. Taking 8 per cent of this cost implies a user cost of capital of \$280 000, or a cost per bed day of over \$35.
- A recently announced new 16-bed facility in the Australian Capital Territory (Ngunnawal Bush Healing Farm) has received a \$5.883 million contribution from the Australian Capital Territory Government, in addition to \$1 million for land from the Australian Government (Australian Capital Territory Health 2012). This would imply a user cost of capital per bed day of \$70.
- Bunjilwarra is the first alcohol and drug rehabilitation facility in Australia dedicated to young Indigenous people (aged 15–20 years). It is a 12-bed facility, located on the Mornington Peninsula in Victoria. Construction was achieved through a \$5 million joint funding partnership between the Foundation for Alcohol Research and Education (FARE) and the Victorian Government (Edith Cowan University 2011). These costs would imply a user cost of capital per bed day of \$51.

6.3.3.2 Operating expenditure

Operating expenditure refers to the day-to-day costs of providing services to residential clients. Identifying these costs separately from the overall costs of the facility is complicated, as facilities also provide services to non-residential clients and community outreach services and participate in various strategic and policy roles within the wider Indigenous and non-Indigenous health sectors. All the facilities consulted provided these additional services.

The analysis assumes that staff time is the only expense related to external services. One service consulted indicated that they had: conducted 20 community activities over the course of a year aimed at prevention of drug and alcohol problems; conducted three weekly meetings (Alcoholics Anonymous and Narcotics Anonymous), which were accessed by members of the wider community; and that senior management were engaged in collaborations and strategic planning with state-wide Aboriginal medical and community services. Altogether, this contributed to approximately 10–15 per cent of employee-related costs across a residential facility and halfway house. The figure of 10 per cent is conservatively applied to reduce employee-related costs among other facilities.

On this basis, operating expenditure in 2010–11 per client ranged from \$7357 to \$30 131, with a mean of \$15 651 and median of \$12 557. The facility reporting \$30 131 was an outlier, and it was based on a model whereby children were able to stay with their mothers inside the facility and length of stay was considerably longer than in other facilities. Operating expenditure per bed day was also higher at that facility.

Operating expenditure for clients in the MERIT program is funded directly by New South Wales Health and reflects the marginal cost of adding beds to an existing facility. The grant amount does not reflect the true cost of providing services to these residents, as the costs of operating the facility more broadly, including access to clinical staff, security, management and administration, were already funded through other programs. One facility reported its income under the MERIT program as \$62 050 in 2010–11 and took seven MERIT clients. This amount was used to fund seven residents to undertake a 12-week program, including a dedicated MERIT intake officer. The cost per client, including depreciation on motor vehicles, is \$8864, or \$104 per bed day (based on clients completing a 12-week treatment program).

6.3.3.3 Total expenditure

Total (capital and operating) expenditure per client ranged from \$8608 to \$33 822, with a mean of \$18 385 and median of \$15 566.

Total expenditure per bed day ranged from \$204.5 to \$284.9, mean \$245.3 and median \$245.9. This information is summarised in Table 6.2.

Table 6.2: Descriptive statistics for cost estimates, residential rehabilitation (\$), 2012–13

	Minimum	Maximum	Mean	Median
Per client				
Operating expenditure	7790	31 904	16 587	13 327
Capital expenditure	818	3122	1798	1626
Total expenditure	8608	33 822	18 385	15 566
Per bed day				
Operating expenditure	185	269	219	211
Capital expenditure	16	50	27	20
Total expenditure	204.5	284.9	245.3	245.9

Source: Stakeholder consultations.

6.3.3.4 Comparisons with previous estimates

Shanahan et al. (2003) estimated an operating cost of \$98 per day during a period of residential treatment for narcotic dependence (average length 77 days, or 11 weeks). Inflating this using CPI from 2002 to 2012 gives approximately \$130 per day (Australian Bureau of Statistics 2012). The total cost per client was estimated at \$7550, which is inflated to \$10 042.²¹ It should be noted that this did not include capital expenditure. While lower than the mean operating expenditure per client shown in Table 6.2, it is within the range of estimates. The study did not focus on facilities providing services to Indigenous clients and was based on analysis of two sites' costs.

Health Policy Analysis (2005) obtained 2003–04 cost data from 28 residential drug and alcohol services in New South Wales (providing services to Indigenous and non-Indigenous clients). The mean expenditure per client day was \$117 (median \$107), inflated at CPI to 2012 gives \$148. Mean cost per closed episode was \$6995, which inflated at CPI to 2012 gives \$8846. The authors noted that there was considerable variation between services. Average income from government sources was 77.7 per cent, 18.1 per cent from client contributions and 4.2 per cent from other sources. Indigenous-targeted services were associated with lower costs per day (\$98, inflated at CPI to \$124 in 2012), but higher costs per episode (\$9100, inflated at CPI to \$11 508 in 2012), reflecting longer lengths of stay on average. Overall, Indigenous clients cost \$19 per day more than the average which, inflated at CPI, implies a cost of \$172 per day in 2012. Female clients were also more expensive than the average, by \$6 per day or an additional \$966 more per closed episode, giving a daily cost in 2012 of \$156 per day or \$1222 per closed episode (Health Policy Analysis 2005).

While the costs per bed day in both Shanahan et al. (2003) and Health Policy Analysis (2005) are approximately half of the minimum given in Table 6.2, the difference can be explained by:

- the exclusion of capital costs in these studies
- differences in client focus, and
- the possibility that care costs have increased by more than the CPI over the period as has been the case with other health services during the period.

²¹ In addition to this were the costs of detoxification: 53 per cent of residential rehabilitation clients underwent detoxification on an inpatient basis; 11 per cent as an outpatient; and 36 per cent did not undergo detoxification. This resulted in increased costs by a mean of \$1142 per client, inflated to \$1519.

7. Cost–benefit analysis, results and conclusions

7.1 Aim

The aim of the cost–benefit analysis was to consider the costs and benefits of investment in residential drug and alcohol treatment for Indigenous people convicted of non-violent crime related to their substance use compared with incarceration.

7.2 Methods

The cost–benefit analysis compared the costs of the two alternative scenarios with their associated benefits. The present value of the costs and the benefits over a ten-year period was estimated for the year 2012–13 using a discount rate of 7 per cent. This discount rate was selected in accordance with the Office of Best Practice Regulation guidelines (Australian Government Department of Finance and Deregulation 2011).

7.3 Costs

The derivation of the costs of the two alternative scenarios is explained in detail in chapter 6.

Cost parameters for the costs of incarceration with limited treatment

- The length of time that Indigenous people who have been convicted of non-violent crime spend in prison is estimated at 12 months, based on Australian Bureau of Statistics data reflecting actual sentence lengths and expected time to serve for Indigenous people convicted of non-violent crimes. Refer to the detailed discussion in section 2.3.1, which explains the justification for this parameter.
- The cost per person of 12 months in prison is \$114 832, with the derived expenditure explained in detail in section 6.2. This is equivalent to a cost per prisoner per day of \$315.

Cost parameters for the costs of residential rehabilitation treatment in the community

As discussed in section 6.3.1, residential rehabilitation treatment models vary, and the scope of reported costs also varies. In particular, some reported costs do not include capital costs, while other estimates reflect only the residential component of treatment excluding after-care support, which is an important component of treatment success. For this analysis, the cost estimates are based on data in annual reports and direct consultation with four residential treatment facilities operated by community-controlled organisations which specifically address the needs of Indigenous clients (as outlined in section 6.3). The total costs of these residential treatment programs fell between \$8608 and \$33 822, including capital costs.

An apparent key driver of costs is length of stay in residential accommodation (an average of around 1.5 months to four months respectively). The average cost per client per day is between \$204.5 and \$284.9 (see Table 6.2). The mean total treatment cost of \$18 385 is used for the cost–benefit analysis (equivalent to a total cost per treatment of \$245.3 per person per day). Notably, even if the maximum cost of residential rehabilitation treatment (\$33 822 per person) was used for the analysis, it is still cheaper than prison (\$114 832 per person) – with use of residential rehabilitation leading to a saving of \$81 000.

Table 7.1 presents the costs per treatment per person of each scenario used in the cost–benefit analysis, and the costs per person per day associated with each alternative.

Table 7.1: Total cost per person (\$), 2012–13

	Incarceration with limited treatment	Diversion to residential rehabilitation treatment	Difference in costs (saving resulting from use of residential rehabilitation)
Total cost per person of each alternative			
Operating expenditure	86 518	16 587	69 931
Capital expenditure	28 313	1798	26 515
Total	114 831	18 385	96 446
Cost per person per day			
Operating expenditure	237	219	18
Capital expenditure	77.6	27	51
Total per person per day	314.6	245.3	69

Source: Steering Committee for the Review of Government Service Provision (2012) and annual reports from various residential treatment facilities assisting Indigenous people and consultations with staff at these residential facilities. Details of derivation in sections 6.2 and 6.3.

7.4 Benefits

There are a range of potential benefits that could result from diverting Indigenous non-violent offenders with drug and alcohol issues into residential treatment facilities. These include a possible reduction in mortality rates, recidivism, avoidance of hepatitis C, and mental health service usage. Additionally, there could also be gains in terms of likely reduction in health care and productivity costs in relation to lower rates of drug and alcohol relapse in the future.

7.4.1 Recidivism

A re-evaluation of the New South Wales Drug Court program by Weatherburn et al. (2008) found that the re-offending rate for those individuals who have successfully completed the Drug Court program (i.e. treatment group) was lower compared with those who were balloted onto the program but removed from it due to either conviction of a violent offence or the fact that they resided 'out of area' (i.e. comparison group). Based on the findings from the survival analysis conducted by Weatherburn et al, (2008), it was estimated that the re-offending rates, a year after treatment, for the treatment and comparison groups were around 40 and 58 per cent respectively, with most re-offending occurring within the first two years.

The following table indicates the cumulative re-offending rates, and the annual offending rates in each year, for both treatment and comparison groups over the post-treatment years.

Table 7.2: Estimated re-offending rates over 10 years

No. of year (post-treatment)	Treatment group		Comparison group	
	Cumulative rates (a)	Annual rates (b)	Cumulative rates (c)	Annual rates (d)
1	0.40	0.40	0.58	0.58
2	0.57	0.17	0.73	0.15
3	0.63	0.06	0.81	0.08
4	0.73	0.10	0.87	0.06
5	0.73	0.00	0.87	0.00
6	0.73	0.00	0.87	0.00
7	0.73	0.00	0.87	0.00
8	0.73	0.00	0.87	0.00
9	0.73	0.00	0.87	0.00
10	0.73	0.00	0.87	0.00

Note: Weatherburn et al. (2008) did not present the exact re-offending rates over time in their article. We have approximated the annual rates according to their survival analysis findings. Consequently, the actual re-offending rates may differ slightly from the above table.

Source: Deloitte Access Economics' estimation based on Weatherburn et al. (2008).

To estimate the reduction in recidivism costs, the estimated re-offending rates (columns (b) and (d) in above table) for treatment and comparison groups are assumed to hold for individuals who completed the residential treatment program and for individuals who were incarcerated respectively. It was assumed that the drop-out rate for the residential treatment scenario would be similar to that found in previous evaluations of drug diversion program; for example, 31.7 per cent of those who were referred to the MERIT program did not complete their treatment program (Lulham 2009). Hence, it was assumed that the recidivism rate for 31.7 per cent of those referred to residential treatment would be the equivalent as the status quo scenario, i.e. as if they were incarcerated. The relative rates of recidivism in both scenarios, taking into account the higher recidivism rate for the proportion who would be likely to drop out of residential treatment, were multiplied by the cost of one year's imprisonment. The estimated cost of recidivism was approximately \$96 348 per incarcerated prisoner and \$84 888 per client referred to residential treatment in 2012–13.

7.4.2 Mental health service usage

7.4.2.1 Outpatient

The table below presents the number of mental outpatient visits before and after first release from prison taken from Hobbs et al. (2006). As indicated in the table, the average number of visits per prisoner is around 0.82 for Indigenous females and 0.57 for Indigenous males before release. The respective figures rose to 2.5 and 2.1 after release. This translates to an increase of outpatient visits of 1.68 and 1.53 for Indigenous females and males respectively (with a weighted average of 1.53).

Table 7.3: Number of mental outpatient visits before and after first release from prison

	Indigenous females	Indigenous males
Before release		
Visits	725	2379
Mean per prisoner	0.82	0.57
Mean per affected prisoner	9.4	9.9
After release		
Visits	2289	8618
Mean per prisoner	2.5	2.1
Mean per affected prisoner	13.5	21.8

Source: Hobbs et al. (2006).

To estimate the cost of the increased number of mental outpatient visits, the weighted average of 1.55 was applied to the average cost per ambulatory episode of care based on the ROGS report (Steering Committee for the Review of Government Service Provision 2011). Inflating the cost using CPI, the average cost due to increased outpatient visits was approximately \$3278 in 2012–13.

7.4.2.2 Inpatient

Based on Table 7.4, the average number of hospital admissions for a mental disorder before release from prison was 0.03 per prisoner for both Indigenous males and females. After release, the average number of admissions was 0.02. This indicated that the number of admissions has declined.

Table 7.4: Number of hospital admissions for a mental disorder before and after first release from prison

	Indigenous females	Indigenous males
Before first release		
Admissions	53	221
Affected prisoners	27	136
Mean per prisoner	0.03	0.03
Mean per affected prisoner	2	1.6
After first release		
Admissions	29	99
Affected prisoners	19	69
Mean per prisoner	0.02	0.02

Source: Hobbs et al. (2006).

To estimate the costs, the average decline in the number of hospital admissions was multiplied by the average recurrent cost per inpatient bed day in psychiatric hospitals (Steering Committee for the Review of Government Service Provision 2011) and the average length of stay per episode (Australian Government Department of Health and Ageing 2012). Accounting for inflation, this translates to approximately \$67 in 2012–13.

Combining the increase in outpatient costs and decrease in inpatient costs, the average cost in 2012–13 is around \$3185.

It should be noted that the Hobbs et al. study (2006), which informed the costs of mental health service usage, also found a mean increase in general hospital admissions from pre- to post-imprisonment for both male and female Indigenous prisoners; however, these costs have not been included in the cost-benefit analysis.

7.4.3 Hepatitis C

It has been posited that the probability of contracting hepatitis C would be higher in prisons than in residential treatment facilities. This was primarily due to lack of access to clean needles and syringes and a higher likelihood of sharing needles and other equipment such as razors among injecting drug users in prison. Consequently, by diverting incarcerated Indigenous individuals to residential treatment facilities, there would be a potential gain in health benefits by way of reducing the costs of treating hepatitis C.

A recent study by Teutsch et al. (2010) examined the incidence of hepatitis C among prisoners who had a documented negative anti-hepatitis C antibody test result within the previous 12 months, and who had a history of intravenous drug use. They found an overall incidence rate of 31.6 per 100 person years among this cohort, while the incidence rate for those who had been continuously imprisoned over the period was 22.6 per 100 person years.

It was estimated that the average weighted cost for treating a person with hepatitis C was approximately \$3131 (Deloitte Access Economics calculation based on Applied Economics 2005). Consequently, to obtain the cost per prisoner, the average weighted cost was first multiplied by the hepatitis C incidence rate for those who have been continuously imprisoned and then adjusted by the proportion of Indigenous prisoners who have ever injected drugs, around 46 per cent (Indig et al. 2010; Australian Bureau of Statistics 2011a). This yields a cost of \$329 per prisoner in 2012–13. When these costs are projected forward for 10 years, the net present value of the cost of treating hepatitis C is \$1993 per prisoner.

At the same time, there would be gains in terms of reducing the disability adjusted life years (DALYs) by 0.02. This was estimated based on the weighted DALY for hepatitis C estimated by Applied Economics (2005) and multiplying this by the incidence rate of hepatitis C in prison (Teutsch et al. 2010), and the proportion of Indigenous prisoners who have ever injected drugs (Indig et al. 2010). It was assumed that those infected with hepatitis C would experience this DALY rate as a constant over 10 years from the point of contraction. Translating this loss of quality of life into dollar terms using the value of statistical life year (VSLY), \$174 110²² in 2012–13 dollars, gives a net present value of \$23 281.

7.4.4 Mortality

Using the SMR for Indigenous male and female ex-prisoners, standardised with comparison to mortality rates in the respective Indigenous populations, potential life years lost due to incarceration were calculated. It should be noted that this analysis may overstate the mortality risks from prison, as the comparison population was the broader Indigenous community rather than Indigenous people with drug and alcohol problems.

²² Following the recommendation by Office of Best Practice Regulation, the VSLY used in the estimation is \$151 000, measured in 2007 prices (Australian Government Department of Finance and Deregulation 2008). Inflating this using CPI, the VSLY is estimated to be \$174 100 in 2012–13.

The SMR was applied to the Australian Bureau of Statistics experimental life tables for Aboriginal and Torres Strait Islanders (Australian Bureau of Statistics 2009) to establish the difference in life expectancy and life years lost if an Indigenous person was incarcerated. Table 7.5 shows the mortality rates for previously imprisoned individuals are higher than the general population. Benefits in terms of reductions in premature mortality could therefore be obtained by diverting incarcerated Indigenous individuals to residential treatment facilities.

Table 7.5: Mortality rates for standard population versus Indigenous population previously imprisoned

	Male		Female	
Start age	Mortality rates for standard population	Mortality rates for previously imprisoned	Mortality rates for standard population	Mortality rates for previously imprisoned
20	0.002	0.003	0.001	0.002
25	0.003	0.004	0.002	0.004
30	0.004	0.006	0.002	0.004
35	0.006	0.009	0.003	0.006
40	0.008	0.009	0.004	0.008
45	0.009	0.011	0.006	0.010
50	0.012	0.015	0.007	0.013
55	0.016	0.020	0.010	0.018
60	0.024	0.030	0.017	0.031
65	0.038	0.046	0.024	0.042

Source: Deloitte Access Economics calculations based on Australian Bureau of Statistics data.

To estimate the potential benefits in dollar terms, the years of life lost due to premature death (YLL) is first calculated by multiplying the number of deaths by the standard life expectancy (in years) and then multiplied by the VSLY at \$174 110 (see section 7.4.3). This equates to approximately \$92 543 in 2012–13 for each Indigenous person imprisoned. As noted above, this is likely to somewhat overstate the real mortality difference between prison compared to residential treatment, as the SMR compared mortality rates of Indigenous ex-prisoners to the broader Indigenous community, rather than to an Indigenous cohort with drug and alcohol problems.

7.4.5 Healthcare costs of drug use

A potential benefit of residential treatment for Indigenous prisoners with drug and alcohol problems would be more intensive treatment of the drug dependency or abuse problem, and reduced relapse or reuse of drugs in the long term. Due to a dearth of outcome studies on drug-free prison units, drug use outcomes from a study of residential treatment in prisons were used as a proxy for this type of drug and alcohol intervention. These interventions share a common commitment to a drug-free environment, although the nature of the interventions delivered within these treatment settings may differ. A study by Pelissier et al. (2003) examined drug relapse for prisoners who either received residential drug treatment in prison or were incarcerated and not provided with drug treatment. The weighted average relapse rate post-release for male and female prisoners who received residential drug treatment in prison was 47 per cent, while for male and female prisoners who did not receive any treatment in prison it was 56 per cent. A study by Hubbard et al. (1997) examining one-year outcomes of long-term community residential treatment for drug abuse found relapse rates between 33 per cent and 47 per cent depending on the drug used, leading to a weighted average relapse rate of 39 per cent.

To estimate the difference in costs to society of health care usage for those who continue to drugs and alcohol, the costs of alcohol and illicit drug use were taken from a study by Collins and Lapsley (2008). This study estimated the healthcare costs to Australian society of alcohol and drug use in 2004–05, including the cost of medical, hospital, pharmaceutical and ambulance services. This study was the only Australian study which could be identified that captured the healthcare costs of alcohol and illicit drugs in a consistent manner. The total cost to society of alcohol was then divided by the proportion of Australians who were found to be at lifetime risk of harm through their alcohol use from the National Drug Strategy Household Survey in 2004 (20%; Australian Institute of Health and Welfare 2011c), multiplied by the total Australian population 14 years and older in 2004 (Australian Bureau of Statistics 2010b). The same approach was taken for illicit drugs, but this time the total cost was divided by the proportion of the Australians who had used illicit drugs in the last 12 months in 2004 (Australian Institute of Health and Welfare 2011c), multiplied by the total Australian population 14 years and older in 2004 (Australian Bureau of Statistics 2010b). The two cost-per-person amounts were then combined to a weighted average based on the relative prevalence of alcohol and illicit drug use by Indigenous prison entrants (Australian Institute of Health and Welfare 2011c), to derive a total healthcare cost due to drug use per person. This was then applied to the respective relapse rates of prison and residential drug treatment facilities as outlined above. However, as noted above, in the incarceration scenario we assumed the relapse rate for those who received residential treatment in prison, though the availability of residential treatment is limited. In addition, outcomes for drug-free units in prison are currently unknown. Therefore, it is likely that the drug relapse rates and associated healthcare costs are understated for the incarceration scenario.

7.5 Results

As noted above, the present value of the costs and the benefits over a ten-year period was estimated for the year 2012–13 using a discount rate of 7 per cent. This discount rate was selected in accordance with the Office of Best Practice Regulation guidelines (Australian Government Department of Finance and Deregulation 2011). The modelling over ten years is depicted in Appendix A.

The findings in terms of the difference between the net present value of the costs and benefits of prison and residential treatment are presented in Table 7.6. A negative result in the ‘difference’ column represents a financial saving resulting from the use of residential rehabilitation instead of prison or an improvement in mortality and health-related quality of life.

Table 7.6: Net present value (NPV), 2012–13

Items	NPV prison Column A	NPV resi rehab Column B	Difference Column B – Column A	Comment
Costs				
Cost of each alternative	\$114 832	\$18 385	–\$96 446	Use of residential rehabilitation represents a saving
Benefits				
<i>Financial benefits</i>				
Recidivism	\$96 348	\$84 888	–\$11 461	Recidivism is lower with residential rehabilitation leading to savings in prison costs
Mental health service usage	\$3278	\$0	–\$3278	Residential rehabilitation is not associated with the same adverse impacts on mental health as prison, leading to savings in use of mental health services
Hepatitis C treatment costs	\$1993	\$1747	–\$246	Residential rehabilitation is associated with lower rates of contraction of hepatitis C, leading to savings in treatment costs

Items	NPV prison Column A	NPV resi rehab Column B	Difference Column B – Column A	Comment
Costs of drug use for those who relapse	\$164	\$136	–\$28	Residential rehabilitation is associated with lower rates of drug use relapse, leading to savings in healthcare and productivity costs
Subtotal financial	\$101 783	\$86 771	–\$15 012	Savings per offender resulting from use of residential rehabilitation
Net financial benefit of residential rehabilitation			–\$111 458	Savings per offender resulting from use of residential rehabilitation
<i>Non-financial benefits (improved mortality and quality of life)</i>				
Hepatitis C burden of disease	\$23 281	\$23 065	–\$216	These figures represent the monetary value of improvements in mortality and quality of life, and represent benefits of using residential rehabilitation in addition to the financial benefits above
Premature mortality	\$92 543		–\$92 543	
Total non-financial	\$115 824	\$23 065	–\$92 759	

Note: Figures may not add to totals due to rounding.

Source: Deloitte Access Economics calculation.

7.6 Conclusion

This analysis highlights the considerable benefits associated with the diversion of Indigenous offenders into community residential drug and alcohol rehabilitation services instead of incarceration. Diversion is associated with financial savings as well as improvements in health and mortality.

- The total financial savings associated with diversion to community residential rehabilitation compared with prison are \$111 458 per offender.
- The costs of treatment in community residential rehabilitation services are substantially cheaper than prison. Diversion would lead to substantial savings per offender of \$96 446 (based on a cost of community residential rehabilitation treatment of \$18 385 per offender). Notably, even if the high side estimate of the cost per offender for residential rehabilitation treatment were to be used (\$33 822), the saving would still be substantial – at around \$81 000.
- Community residential treatment is also associated with better outcomes compared with prison – lower recidivism rates and better health outcomes, and thus savings in health system costs. The savings associated with these additional benefits of community residential treatment are approximately \$15 012 per offender.
- In addition, treatment of Indigenous offenders in the community rather than in prison is also associated with lower mortality and better health-related quality of life. In monetary terms, these non-financial benefits have been estimated at \$92 759 per offender.

As the residential treatment scenario involves lower cost and is associated with better outcomes than incarceration, it is clearly the more advantageous investment.

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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Total
Benefits											
Recidivism	\$52 485	\$17 564	\$6654	\$8185	\$0	\$0	\$0	\$0	\$0	\$0	\$84 888
Mental health service usage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Hep C costs	\$363	\$339	\$296	\$242	\$184	\$132	\$88	\$55	\$32	\$17	\$1747
Hep C related quality of life (DALY * VSLY)	\$2882	\$2895	\$2706	\$2529	\$2363	\$2209	\$2064	\$1929	\$1803	\$1685	\$23 065
Healthcare and production costs of drug use for those who relapse	\$136	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$136
CBA FOR RESIDENTIAL CARE SCENARIO COMPARED TO PRISON											
Costs											
Difference between prison and residential rehabilitation	-\$96 446	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$96 446
Benefits											
Difference in recidivism outcomes	-\$14 117	\$1466	-\$1370	\$2561	\$0	\$0	\$0	\$0	\$0	\$0	-\$11 461
Mental health service usage avoided	-\$3278	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$3278
Hep C treatment costs avoided	-\$51	-\$48	-\$42	-\$34	-\$26	-\$19	-\$12	-\$8	-\$4	-\$2	-\$246
Healthcare and production costs of drug use avoided	-\$28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$28
Non-financial											
Hep C related quality of life reductions avoided (DALY * VSLY)	-\$216	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$216
Mortality risk avoided (YLL*VSLY)	-\$92 543	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$92 543

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