



# Research Publication

**The effects of the NSW  
Prison Methadone Program  
on Criminal Recidivism and  
Retention in Methadone  
Treatment.**

**Evaluation of the NSW Department  
of Corrective Services  
Prison Methadone Program: Study 7**

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## SUMMARY

- \* This study sought to examine firstly the re-offending patterns of prisoners released on the prison methadone program, and secondly their retention rates in the community methadone maintenance programs.
- \* The total sample consisted of 377 people, 223 of whom were released from gaol on the prison methadone program before 30th June, 1988. These 223 people fell into two subgroups: firstly, those for whom a match was found the "matched methadone group" (N=154), and secondly, the "unmatched methadone group" (N=69). The remaining 154 people formed a comparison group who were matched with the methadone group on sex, type of release (i.e. probation, parole), and date of release, as well as having to be drug involved.
- \* For those in the methadone group, there were roughly equal numbers of males and females (56% male, 44% female), most (63.2%) were aged below 30 years, the majority were released either to probation (46.6%) or parole (39.0%) and the average length of time since release was 12.9 months.

### Reoffending Patterns

- \* 47.5% of the methadone group had been reincarcerated since their release and before 31st July, 1988, however the difference between the matched methadone (42.9%) and comparison (32.5%) groups on this measure was not quite statistically significant ( $X^2_1 = 3.54, p < .1$ ).
- \* 70% of the methadone group were reconvicted or charged in court since release, but there was no difference between the matched methadone (65%) and comparison (57%) groups on this variable ( $X^2_1 = 1.65, p > .1$ ).
- \* The average number of convictions/charges since release for the methadone group was 4.4; and the matched methadone group had more convictions/charges since release (3.6 on average) than the comparison group (2.6 on average) ( $t_{306} = 2.01, p < .05$ ).
- \* The most common offences committed by the methadone group since release were by far offences against property, e.g. break, enter and steal, car theft, common theft, etc. (total 54.8%), followed by robbery offences (9.6%), fraud (8.2%), offences against order (7.6%), assault/homicide (7.0%) and drug offences (5.1%). There was no difference between the matched methadone and comparison groups in types of most serious offence committed since release ( $X^2_8 = 3.53, p > .85$ ).

- \* Using the matched pairs 44.8% of the matched methadone group had committed offences of a more serious nature than the comparison group, 35.7% committed less serious offences than the comparison group, while 19.5% either committed offences of an equally serious nature to the comparison group or neither of the matched pair reoffended.
- \* The most common type of penalty received by those in the methadone group was a further gaol term (37.7%), followed by a fine (29.1%), good behaviour bond (9.4%) and community service order (2.2%). The matched methadone group were significantly more likely to receive a gaol sentence than the comparison group ( $X^2_1 = 4.64, p < .05$ ).
- \* The methadone sample spent 18.5% (on average) of their time since release in gaol. Those in the matched methadone group spent significantly longer periods in gaol (19.5%) than those in the comparison group (12.9%) ( $t_{306} = 2.13, p < .05$ ).
- \* The average number of unfinalised cases (i.e. not resolved in court at the time of data collection) was 1.0 for the matched methadone group and 0.9 for the comparison group.
- \* 24.7% of the methadone group had committed more serious offences since release than in the equivalent time before their episode on the prison methadone program, while 37.7% committed less serious offences since their release, 29.6% had not re-offended since release, and 7.6% had committed equally serious offences since release as prior to incarceration.
- \* Those in the methadone group who were 'at risk' for at least 3 months committed significantly fewer offences since their release (4.6 on average) than in the equivalent period prior to their incarceration (14.8 on average) ( $t_{189} = 10.1, p < .005$ ).
- \* Fewer robbery offences were committed since release (8%) than prior to incarceration (20%) ( $X^2_8 = 20.74, p < .01$ ).

### Retention In Community Methadone Programs

- \* 33.6% of the methadone sample were continuously on community methadone programs since their release and up to 31st July, 1988, while 34.5% stopped treatment either of their own accord or involuntarily, and 31.8% stopped community treatment due to reincarceration.
- \* Of those who stopped community methadone treatment either voluntarily or involuntarily, the majority (79.3%) did so within six months.

\* Those continuing methadone treatment were likely to:

- a) have been released for shorter times than those who stopped,
- b) have robbery as their most serious prior offence,
- c) have been released to parole more often than those who stopped,
- d) be slightly older than those who stopped, and

e) have fewer charges since release (0.9 on average) than those who stopped (6.2 on average).

\* Of those released for less than 12 months, 51.7% of the stopped voluntarily/involuntarily group had stopped within **one** month, compared to 20.8% of the same group who had been released for at least 12 months.

## 1. INTRODUCTION

In April, 1986, a pilot pre-release methadone program was established within the N.S.W. prison system for inmates nearing release with a history of opiate addiction (amongst other criteria). This program was set up by funding from the National Campaign Against Drug Abuse (NCADA) through the then N.S.W. Drug and Alcohol Authority.

The pre-release program was expanded in late 1987 to become the N.S.W. prison methadone program, and continued funding from NCADA depends upon a favourable evaluation of the program. With the expansion of the program came a number of changes to the policy and acceptance criteria. For example, methadone became available to more people (up to 500) in more N.S.W. gaols, and more community methadone dispensing units became available to inmates on their release. The expanded program encompassed prisoners on methadone at the time of incarceration, long-term prisoners, and prisoners who are HIV or Hepatitis B virus positive, as well as pre-release prisoners. Additionally, it was no longer compulsory for inmates to be supervised by the Probation and Parole Service after release (although the majority were or are still under some type of after-care supervision).

This study is one of a series of studies investigating different aspects of the N.S.W. prison methadone program. Some of the other projects have looked at drug usage (through urinalysis) both in gaol and following release to a community methadone unit, as well as the perceptions of inmates and relevant staff about the program.

One of the key objectives of the N.S.W. prison methadone program is "to break the cycle of criminal activity associated with drug use" (Baldwin, 1987). In order to evaluate this objective of the program, it was decided to investigate the available record information on criminal recidivism. An earlier methadone research report (Gorta, 1987) also looked at this issue. This earlier study involved following up the 201 assessments made up until 1st June, 1987, to determine both how many of those who had been released had returned to gaol and how many were still on community methadone programs.

This current research intends to examine a range of measures of criminal recidivism in relation to a suitable comparison group. Assuming that the relationship between drug use and crime is one which can be broken or somehow reduced by methadone maintenance treatment, it is reasonable to expect that those on the methadone program would have **lower** criminal recidivism rates than those from a suitable comparison group.

It is also reasonable to expect that there would be a reduction in the number and severity of convictions from before to after an episode on the N.S.W. prison methadone program.

There are two broad aims of this research, namely:

1. to ascertain and examine criminal recidivism rates for inmates released from gaol on the prison methadone program up to 30th June, 1988, using two comparisons:
  - a) in relation to recidivism rates of a suitable comparison group;
  - b) in relation to offence rates during a time prior to commencement on the program;
2. to examine retention rates on community methadone programs since release from gaol.

## 2. METHODOLOGY

### 2.1 Overview of the Design

The study included those people released from gaol on the prison methadone program between April, 1986 and 30th June, 1988. In order to assess whether the program had in any way affected crime committed since release from gaol, two different types of comparisons were made:

Firstly, reoffending patterns of those released on the methadone program were compared to the reoffending patterns of a comparison group who were matched in terms of sex, date and mode of release with those on the program;

Secondly, a 'pre-post' comparison was made of the offending by those released on the program, where the offences committed prior to going on methadone in gaol are compared to those committed subsequently.

As a result of the matching procedure, three groups were formed. Those in the methadone group fell into two sub-groups: a) those for whom a match was found, of size 154, hereafter referred to as the "matched methadone group"; and b) those for whom no match could be found, of size 69, and hereafter referred to as the "unmatched group". The third group comprised those **not** on the prison methadone program who were selected by the matching process, of size 154, and hereafter referred to as the "comparison group" (more detail is provided in Section 2.3 about how this group was chosen).

The two major dependent variables investigated in the study were criminal recidivism and retention in the community methadone programs, both of which were measured up to the cut-off date of 31st July, 1988. Recidivism was

measured in a number of different ways, including return to gaol, number of convictions/charges, type of most serious offence, penalties received, length of further gaol sentences, percentage of time spent in gaol since release, and number of outstanding charges. While these different measures are inter-related, each was examined separately to determine whether participation in the methadone program may have affected some, but not all, of these measures.

## 2.2 Sources of Data

This study was based on data obtained from official records. A variety of information sources were utilised in the data collection phase:

- i) The register of assessments maintained at the Methadone Unit of the Department of Corrective Services was used to determine the number of people who had been assessed for the program, and the result of the assessment (i.e. as suitable or unsuitable);
- ii) The Department of Corrective Services' computerised Offender Record System was accessed to calculate the number of inmates assessed as suitable who had been released from gaol (up to 30th June, 1988), the exact date of their release, and the type of release they were granted (i.e. parole, probation, licence, etc).
- iii) The computerised Discharge Reports Summary maintained by the Research and Statistics Division of Corrective Services was used to select a matched group with whom the methadone sample could be compared. This was achieved by a process of finding a match from the Discharge Report for those in the methadone group.
- iv) Police records were accessed in order to examine both criminal histories and reconviction data for those who had been released from gaol in both the methadone and comparison groups. The police records were used in preference to Probation and Parole files because they contained more comprehensive details about criminal records, in addition to being more easily accessible.  
In a number of cases, the police records were incomplete. This was usually because the case had not been finalised in court at the time of data collection, particularly District Court matters. In the absence of certain information, an additional data source was used.
- v) This source was the District Court Criminal Registry computer system. It was used to find out the outcomes of matters which had been referred to the District Courts (but

were not available from the police computer).

At the time of data collection, there were still a number of matters which had not been finalised in both Local and District courts.

- vi) Records from the Pharmaceutical Services Branch of the N.S.W. Health Department were accessed to obtain the following information: commencement dates of those collecting methadone at the community dispensing units, and the date of termination of methadone treatment (if applicable). Computers in the Directorate of the Drug Offensive were also used in this process as they were linked with the Pharmaceutical Services Branch system.

The data collection phase was an extremely lengthy and tedious procedure, conducted between September, 1988 and February, 1989, and was done by only one researcher. It would be advisable, if a similar project is to be conducted, to involve a team of researchers in the data collection phase. It is also recommended to leave a longer period of time between the cut-off date (in this case, 31st July, 1988) and the commencement of data collection. This would allow the necessary time for outstanding charges to be heard and finalised in court.

## 2.3 Selection and Suitability of the Comparison Group

The comparison group was chosen on the basis of a number of selection criteria. All those in the comparison group were matched with the methadone group on: sex, date of release from gaol, and type of release (i.e. probation, parole, etc). In addition, each person chosen for the comparison group had to be identified (from computer records) as being supervised by a Probation and Parole Officer for an offence(s) committed to support an illegal drug habit (in the opinion of the offender's Probation and Parole Officer).

The last criterion was included to ensure that those in the comparison group had a drug problem. Ideally, all would have a heroin problem, however it was not possible to distinguish between different drugs of addiction from the information available. It was assumed that the majority of drug problems would be heroin-related since all those in the comparison group had been in gaol. 'Addiction' to (as distinct from dealing in) other illicit drugs (e.g., marijuana, amphetamines, etc.) would not **usually** lead to the commission of crimes which result in a gaol sentence.

There was some concern that the two groups (the methadone and comparison groups) might be different, particularly in terms of the 'severity' of their present crime and criminal history.

Because the groups were not matched on severity of current sentence, it may have been that the methadone group were 'worse' offenders in terms of their criminal histories and 'current' offences; and that any comparison of subsequent offences would be invalid. Matching the two groups on type of release (to probation, parole, or licence) somewhat overcame this problem in that those with head sentences greater than three years (i.e. parolees) were matched with other parolees, etc. However, there was still the chance that the two groups were different.

A sentence handed down in a court takes into account such factors as the type of offence, seriousness of the offence, and an offender's past criminal history. Therefore, if the two groups had an equivalent distribution of sentences being served prior to release, it would allay any concerns that the two groups were different from each other in this area.

Hence, it was decided to statistically test for differences between the distributions of head sentences of the two groups. The Mann-Whitney test was used, which tests the null hypothesis that two samples come from populations with the same distribution. The results of this test showed that the distributions of head sentences for the two groups were equivalent ( $p > .75$ ). The median length of head sentences for both groups was 24 months. So the comparison group was found to be a suitable comparison for the matched methadone group.

The main difference between the methadone and comparison groups is that the reasons for the comparison group **not** being on the methadone program are unknown. Some of the comparison group may have tried to get on the program and were unsuccessful or were placed on a waiting list. Others in the comparison group would not have tried to get onto the program. The effect of this difference on subsequent conviction rates is unknown.

Another factor which could not be controlled is that some of those in the control group may have had some other treatment (apart from methadone) during their incarceration, e.g., drug and alcohol activities, Narcotics Anonymous, etc. However, those in the methadone group are also likely to have been involved with these other treatments.

There were a number of people in the methadone group for whom no match was found (i.e. the unmatched group). There are a variety of reasons for this:

- i) inmates released by remission or bail are not usually under the supervision of a Probation and Parole Officer, and the use of Probation and Parole records was a necessary part of the matching procedure;

- ii) it was very difficult to find matches for those who were released on methadone prior to when the Department's computer system was on line (around November, 1986). This was because prior to that time, there were no computerised discharge reports from which to choose a sample. However, in the case of the Long Bay Complex, a trial run printout of discharges from May, 1986 to November, 1986 was available. Hence it was possible to find some matches using this list, but only for **men** released during this period (since no women were held at Long Bay);

- iii) matches for female methadone releasees were difficult to find because of the relatively low numbers of women in prison. Of non-methadone female releasees who fitted the criteria of date and type of release, there weren't enough who were identified as having committed an offence to support an illegal drug habit.

In summary, those for whom no match could be found differed from those who were matched in that they tended to be female, released prior to November, 1986, and/or released to remission or bail.

#### 2.4 Methodological Issues Involved in the Pre-Post Comparison

The 'pre-post' comparison involves comparing number and seriousness of offences committed before and after an episode on the prison methadone program. This type of analysis requires some further explanation.

Difficulties arose in trying to compare periods before and after a time in gaol because everyone in the methadone group was released at different times and were hence 'at risk' for variable times. (Note: 'at risk' time is the time since release spent in the community and does not include subsequent time spent in gaol). This problem was overcome by calculating for **each** individual their 'at risk' time and a comparable period of time at risk prior to their incarceration (i.e. prior to the episode on methadone in gaol). For example, if someone had been released for 12 months and spent three months in gaol, their at risk time was nine months; and nine months was counted back from the date of incarceration (i.e. prior to going on the prison methadone program).

A further problem arose because a number of people had been released for a minimum of only one month. It was necessary to define a cut-off point which was reasonable in terms of allowing enough time after release for a person to reoffend and be caught; as well as attempting to compensate for the differing circumstances which apply to people immediately following their release (this issue will be raised in the discussion). This reasonable time was considered to be three months at risk.

When this cut-off point is applied, a number of subjects are left out of this analysis, including two groups of people:

- i) those who were actually released for less than three months at the cut-off date (31st July, 1988); i.e. they were released after 30th April, 1988;
- ii) those who were released before 30th April, 1988 but who had spent some time in gaol, that time in gaol causing the individual's at risk time to be less than three months.

The issue of excluding this second group from the analysis will be further raised in the results and discussion sections of this report.

### 2.5 Analysis

The two primary areas of interest in terms of analysis were differences between the methadone matched and comparison groups in criminal activity since release, and differences in criminal activity before and after an episode on the prison methadone program.

Specifically, the outcomes looked at include:

- whether or not subjects were returned to gaol before 31st July, 1988;
- the number, severity, and types of offence(s) committed since release;
- types of sentence(s) received for offence(s) committed since release;
- comparison of seriousness of offence(s) since release between the matched methadone and comparison groups;
- comparison of seriousness of offence before and after an episode on the prison methadone program.

The various types of tests (of statistical significance) used in the analysis included: tests of means (t-tests, analyses of variance), tests of association (chi-square analysis), and discriminant analyses.

The data were analysed using the SPSS (PC+) and MINITAB statistical packages.

## 3. RESULTS

### 3.1 Result of Assessments

Between April, 1986 and 30th June, 1988, 530 assessments of suitability for admission to the prison methadone program had been made. These assessments involved 484 inmates, since some had previously been assessed as unsuitable for the program and tried again, while others were released, reincarcerated and then reassessed for the program. The majority of the prisoners assessed (80.4%) were considered as suitable for the program.

Of the 404 inmates assessed as suitable, 167 had not been released before 30th June, 1988, while 13 had withdrawn from the program prior to their release and were hence not counted in the sample. In addition, one person died in gaol prior to his release whilst on remand for murder and armed robbery in addition to a current 18 month head sentence.

This left 223 people who had been released on the prison methadone program prior to 30th June, 1988.

### 3.2 Demographic and Background Information

#### a) Sex

Just over half (56%) of the 223 prisoners released on to the prison methadone program were male. This is in contrast to the composition of the N.S.W. prison population in which most (approximately 95%) of the prisoners are male.

Attempts were made to match those in the methadone group and comparison group in terms of sex. Due to the difficulty of finding matches for women released before November, 1986, (discussed earlier), a higher proportion in the unmatched group were female, while a higher proportion in the matched group were male (see Table 1).

Caution should be exercised when looking at various differences between the unmatched and the matched/comparison groups as some of these differences are likely to be a function of the sex distribution.

Table 1: Sex Distribution

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	N=154 %
Male	56	19	72	72
Female	44	81	28	28

#### b) Age

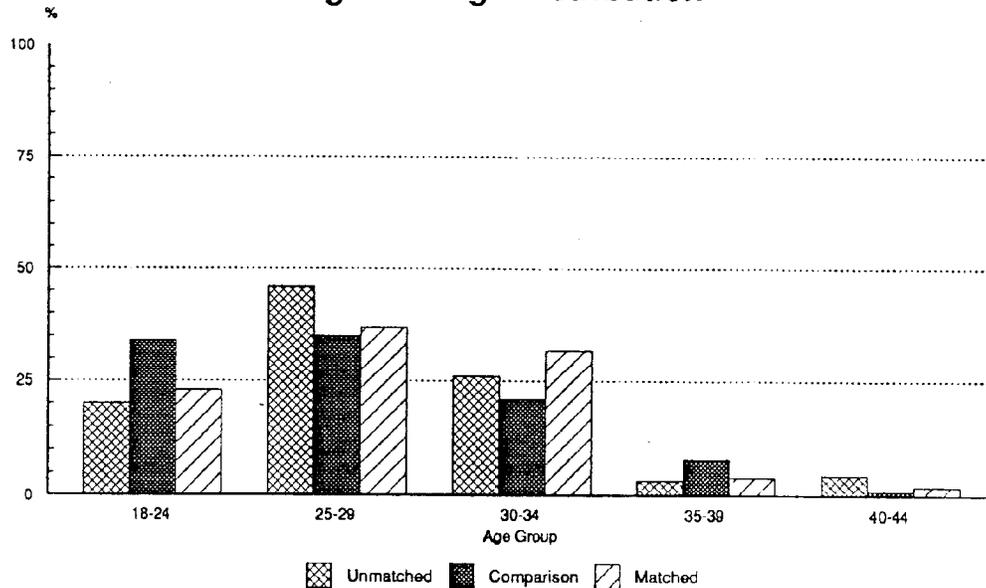
The average age of those in the combined methadone group was 28.1 years. The majority of those in the methadone group were aged below 30 years (63.2%), with only 6.3% being aged 35 years or older.

Those in the comparison group tended to be slightly younger on average than those in the matched methadone group ( $t_{306} = 1.89, p < .06$ ) since the two groups were not matched on age.

Table 2: Average Age

	Methadone		Comparison	
	Total N=223	Unmatched N=69	Matched N=154	N=154
Average Age (in years)	28.1	27.9	28.2	27.2

**Figure 1. Age Distribution**



**c) Type of Release**

Almost half of the methadone sample (46.6%) were released from gaol to after-care probation, with the majority of those remaining being granted parole (39.0%). Thirteen per cent of the methadone group were released to remission. Other types of release included bail and licence.

Those in the matched and comparison groups could only belong in the probation, parole, or licence categories since the matching procedure relied in part on Probation and Parole computer files.

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	N=154 %
Probation	46.6	42.0	48.7	48.1
Parole	39.0	14.5	50.0	51.9
Remission	13.0	42.0	-	-
Bail	0.4	1.4	-	-
Licence	0.9	-	1.3	0.6

**d) Months Since Release**

The average length of time since release for those in the methadone group is 12.9 months, with a range from one month to 25.5 months.

The distribution of time since release is essentially the same for the matched and comparison groups, while the unmatched group had been released for significantly longer periods of time ( $F_{2, 374} = 11.1, p < .0001$ ). Again this difference is a function of the matching process whereby it was difficult to find a match for those released before November, 1986.

Again, caution should be exercised in looking at differences between the unmatched and matched/comparison groups since some differences are possibly due to the fact that the unmatched group has been released for a longer period of time (on average) than the other two groups.

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	N=154 %
3 months or less	9.4	7.2	10.4	11.0
> 3 ≤ 6 months	16.1	11.7	18.2	16.2
> 6 ≤ 9 months	9.4	1.4	12.9	13.6
> 9 ≤ 12 months	12.6	13.0	12.3	12.3
> 12 ≤ 18 months	21.1	15.9	23.4	23.4
> 18 ≤ 24 months	26.0	33.3	22.7	22.1
> 24 months	5.4	17.4	-	1.3
Average time (months)	12.9	15.9	11.6	11.6

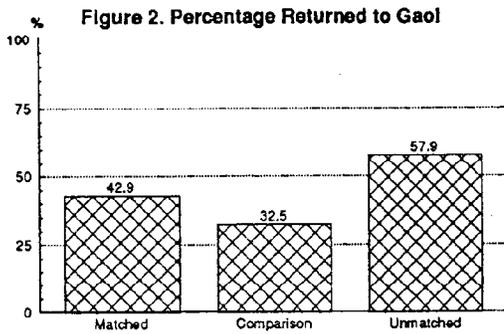
**3.3. Recidivism Measures**

**a) Reincarceration Rate**

Almost half of the combined methadone sample (47.5%) had been returned to gaol since their release and before 31st July, 1988. Classification as 'returned to gaol' included those who received a further sentence, were placed on remand (i.e. refused bail), had their parole or licence revoked, or were serving time for unpaid fines. While it is recognised that including all these categories overestimates the 'true' reimprisonment rate (because some of those on remand would be

judged not guilty, and those serving time for unpaid fines were not sentenced to imprisonment), it was difficult in some instances to identify to which category a person belonged.

The unmatched group had the highest proportion who were returned to gaol (57.9%), however this may be because they had been released for longer, on average, than the other groups; and the comparison group had the lowest proportion reincarcerated (32.5%) (see Figure 2). The difference in per cent reincarcerated between the matched and comparison groups was not quite significant ( $X^2_1 = 3.54, .05 < p < .1$ ).



The similar project conducted with those released on the methadone program prior to 1st July, 1987, (Gorta, 1987), found a reincarceration rate of 42%. The reimprisonment rate in this study for both matched and unmatched groups was 47.5%. It is, however, not entirely accurate to compare these two figures as they were calculated over different follow-up times (the current study was conducted approximately one year after the earlier one).

Many people in the sample had been released for a short time (minimum of one month), which would not usually be sufficient to allow offenders to be convicted and sentenced in court, even though some may have been in gaol on remand. For comparison, the reincarceration rates of those who had been released for at least 12 months were analysed. For those in this methadone sub-sample (matched and unmatched), the re-incarceration rate was 61.9%. The rate was not significantly different for the matched (55.4%) and comparison (44.0%) groups (see Table 5) ( $X^2_1 = 1.94, p > .1$ ).

The reincarceration rate is related to time since release, for example, for those in the methadone sample released at least 18 months (N=72), the reimprisonment rate was 72.2%.

**Table 5: Reincarceration Rates for Those Released for at least 12 Months**

	Methadone		Comparison	
	Total N=121 %	Unmatched N=47 %	Matched N=74 %	N=75 %
Returned to gaol	61.9	72.3	55.4	44.0
Not returned to gaol	38.1	27.7	44.6	56.0

**b) Which Variables Predict Who Will Be Reincarcerated?**

A discriminant analysis was conducted in order to determine which combination of factors best discriminates between those who return to gaol and those who do not.

There were six variables measured in this research which were considered to be possible predictors of whether or not a person was returned to gaol. They include: age, sex, type of release (parole versus others), number of prior convictions in a set time frame, type of most serious prior offence in a set time period (robbery versus others), and time on a community methadone program since release. Other variables could also be reasonably expected to affect whether or not a person was reincarcerated, such as employment after release, and family stability, however variables such as these were not measured in this research.

The combination of time since release on community methadone programs, the number of prior convictions (in a set time period), and sex (male versus female) was found to be somewhat predictive of whether or not a person was reincarcerated. This combination of variables correctly classified 60% of cases (when applied to the total methadone sample). A person's age, type of release, and type of most serious offence were not found to be predictive of whether or not they would return to gaol.

Specifically, if a person was male, had spent a relatively short time on community methadone programs since release, and had more prior convictions (within a particular period), they were more likely to return to gaol. This does not mean, however, that females, people who stay for long periods in community methadone programs and people with fewer prior convictions (in a set time period) do not go back to gaol.

### c) Reconviction Rate

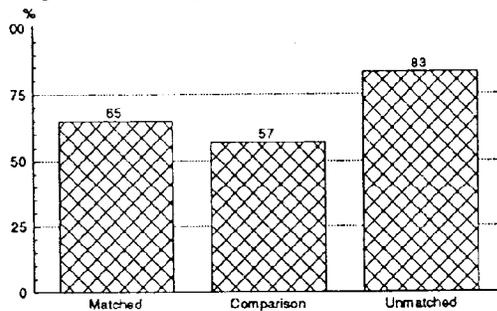
At the time of data collection for this research, not all charges laid by N.S.W. Police before 31st July, 1988, had been finalised in the courts, particularly the more serious charges before the District Courts.

This section of the report combines both convictions and charges heard in court (but not yet finalised) into the one category, bearing in mind that some of the unfinalised cases may be found not guilty. A later section (section e) deals with **finalised** convictions only.

Seven in ten (70%) of the total methadone releasees had been convicted or charged in court since their release. Those from the unmatched group were the most likely to have been charged with at least one offence (83%); however, this may be because this group had been released for longer (on average) and hence had more time during which to re-offend and be charged.

There was **no** difference between the matched methadone and comparison groups in the likelihood of being reconvicted/charged in court; 65% of the matched group and 57% of the comparison group had at least one conviction (see Figure 3) ( $X^2_1 = 1.65, p > .1$ ).

Figure 3. Percentage Reconvicted/Charged in Court



However, there was a difference in the average **number** of convictions/charges since release between the matched and comparison groups. Those in the matched methadone group had **significantly more** convictions and charges (3.6 on average) than those in the comparison group (2.6 on average) ( $t_{306} = 2.01, p < .05$ ).

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	Matched N=154 %
None	30	17	35	43
1-2	21	20	21	19
3-4	15	16	14	18
5-6	11	12	11	6
7-9	10	13	8	6
10-15	9	10	8	6
16-20	3	7	1	-
21+	3	4	2	-
Average number	4.4	6.2	3.6	2.6

If we look only at those who had been released for at least 12 months (so as to minimize short time since release effects), the percentage of the methadone group who had **not** been reconvicted or charged in court was 14.8%, i.e. 85.2% of the methadone group were reconvicted or charged in court since their release. However, there was **not** a significant difference between the matched methadone (78.4%) and comparison (66.7%) groups on this measure ( $X^2_1 = 2.01, p > .15$ ).

For those in the methadone group released for at least 18 months, the per cent who had been reconvicted or charged in court rose to 91.7%. Again, however, the difference between the matched methadone (86.5%) and comparison (73.0%) groups was not significant ( $X^2_1 = 1.34, p > .2$ ).

### d) Which Variables Predict Whether A Person Will Reoffend or Not?

There were six variables which were measured in the research which were thought to be possible predictors of whether or not a person would be reconvicted/charged in court. They were: sex, age, type of release (parole versus others), time spent on community methadone programs since release, number of prior convictions in a certain time span, and the type of most serious prior offence (robbery versus others).

Once again, there are obviously other variables which affect whether or not a person will reoffend, including employment status and family support, however variables such as these were not measured in this research.

The combination of the number of prior convictions within a certain time, the time spent on community methadone programs since release and the type of release were found to be related to whether or not a person reoffended. Those who were released to parole, who had fewer prior convictions in a set time period, and who had spent slightly more time on community methadone programs were likely to have not reoffended since release. However, the combination of these variables was not particularly **predictive** of whether or not a person would be reconvicted/charged in court because it predicted that all but one of the methadone group would reoffend, whereas in fact only 70% were reconvicted/charged in court.

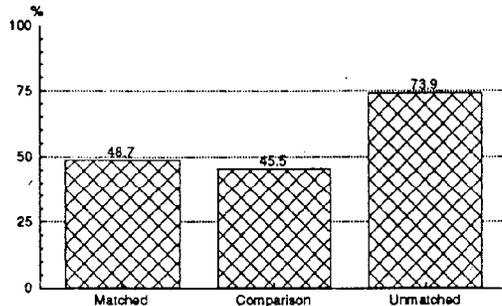
A person's age, sex and type of most serious prior offence were not found to be predictive of whether or not they re-offended.

### e) Actual Conviction Rate

This section reports only on those charges which had been finalised in court at the time of data collection. These charges are hereafter referred to as **actual** convictions.

Over four in 10 of the methadone sample (43.5%) had not been reconvicted since their release. Those in the unmatched sample were the most likely to receive at least one actual conviction (73.9%), although this may be because this group had been released for longer (on average) than the other two groups. There was no significant difference between the matched (48.7%) and comparison (45.5%) groups on whether or not an actual conviction was handed down ( $X^2_1 = .21, p > .6$ ) (see Figure 4).

Figure 4. Percentage with at least one actual conviction



There was, however, a significant difference in the number of actual convictions between the matched methadone and comparison groups. Those in the matched group had significantly more actual convictions (2.6 on average) than the comparison group (1.6 on average) (see Table 7) ( $t_{306} = 2.11, p < .05$ ).

For those in the methadone group who had been released for at least 12 months, three quarters (74.4%) had at least one actual conviction. Once again, there was not a significant difference between the matched methadone (66.2%) and comparison (56.0%) groups on whether or not an actual conviction was received ( $X^2_1 = 1.23, p > .25$ ), for those who had been released at least 12 months.

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	Matched N=154 %
None	43.5	26.1	51.3	54.5
1-2	20.2	28.9	16.2	20.8
3-4	10.3	10.1	10.4	16.2
5-6	10.3	10.1	10.4	0.6
7-9	7.2	11.6	5.2	4.5
10-15	5.8	7.2	5.2	3.2
16+	2.7	5.8	1.3	
Average number	3.17	4.49	2.58	1.64

#### f) Types of Most Serious Offence Committed Since Release

Types of offences are usually divided into categories, and the categories used for this analysis were compiled by the Australian Bureau of Statistics. They essentially comprise:

1. Homicides and assaults.
2. Sexual offences (e.g. sexual assault, soliciting).
3. Robbery and extortion (e.g. armed robbery, blackmail).
4. Fraud (e.g. forge and utter, false pretences).
5. Other offences against property (e.g. break, enter and steal, receiving, goods in custody, car theft).
6. Driving and traffic offences.
7. Offences against enforcement of order (e.g. breach of recognizance, bail offences, escape lawful custody).
8. Drug offences (e.g. possess, use, cultivate).
9. Other offences (e.g. weapon offences, found with intent to commit an offence).

The most common types of most serious offences committed since release by the methadone sample were by far offences against property, in particular such offences as break, enter and steal, car theft, and common larceny (total 54.8%); followed by robbery (9.6%) and fraud (8.2%) offences.

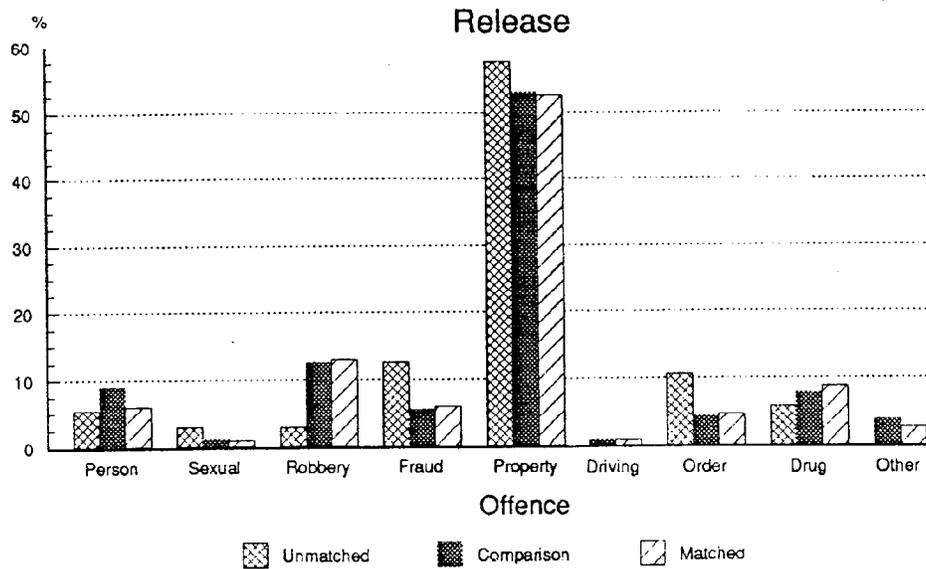
Other types of most serious offences were offences against order (7.6%), assaults/homicides (7.0%), and drug offences (5.1 %)

The least common types were sexual (1.9%) and driving (1.3%) offences.

There were no significant differences between the methadone and comparison groups in types of most serious offence committed since release from gaol ( $X^2_8 = 3.53, p > .85$ ).

	Methadone		Comparison	
	Total N=157 %	Unmatched N=57 %	Matched N=100 %	Matched N=88 %
Homicide/assault	7.0	5.3	8.0	9.1
Sexual offences	1.9	3.5	1.0	1.1
Robbery	9.6	3.5	13.0	12.5
Fraud	8.2	12.3	6.0	5.7
Other property	54.8	57.9	53.0	53.4
Driving offences	1.3	-	2.0	1.1
Offences against order	7.6	10.5	6.0	4.5
Drug offences	5.1	7.0	4.0	9.1
Other offences	4.5	-	7.0	3.4

**Figure 5. Types of Most Serious Offences Committed Since Release**



**g) Using Matched Pairs To Compare Offences Since Release Between the Matched Methadone and Comparison Groups**

Until now, the comparisons made between the matched methadone and comparison groups have been in overall terms, i.e. group comparisons. In this section, individual comparisons are made between the matched pairs of the seriousness of the most serious offence committed since release.

The more serious offence (of the matched pairs) was the one with a lower offence code rating (in this study ABS codes were used). For example, two people were convicted, one for theft of a motor vehicle (code 373), and one for break, enter and steal (code 360). The break, enter and steal is considered more serious as it has a lower offence code. When two offences had equal offence codes, the more serious was the one with a longer or more severe sentence. On occasions when the two offence codes were the same and the sentences were either the same or not known (i.e. in the instance of unfinalised court cases), the offences were considered to be of equal seriousness.

With these criteria in mind, the outcome of the comparison falls into one of six categories which can be grouped into three broader categories (see Table 9).

Over four in 10 (44.8%) of the methadone group had committed offences of a more serious nature since release than the comparison group. This 'more serious' category can be broken down to those in the methadone group who reoffended but their matched pair did not (26.6%), and to those in the methadone group whose offence was

more serious than the matched pair when both reoffended (18.2%).

Around one-third (35.7%) of the methadone group had committed less serious offences since release than the comparison group. Again, this is a combination of a) those in the methadone group who did not reoffend while their matched pair did (18.8%) and b) those in the methadone group whose offence was less serious than the comparison when both reoffended (16.9%).

The final broad grouping was that of equal seriousness of offence since release between the two groups (19.4%). This category was comprised of the matched pairs where neither person reoffended (16.2%), and the matched pairs who reoffended and the offences were of equal seriousness (3.2%).

Using binomial probabilities, it was established that there was no evidence to suggest that the matched methadone and comparison groups differed in their likelihood to commit more serious offences ( $p > .1$ ).

**Table 9: Comparing Seriousness of Most Serious Offence Since Release Using Matched Pairs**

		Total N=154 %
More serious:	more serious than comparison	18.2
	comparison did not re-offend	26.6
		44.8
Less serious:	less serious than comparison	16.9
	methadone did not re-offend	18.8
		35.7
Equally serious:	equal seriousness of offence	3.2
	neither one in pair re-offended	16.2
		19.4

For those who had been released for at least 12 months, the pattern of comparing seriousness of offence was similar to that for the whole sample. The main difference is that there were

only 6.7% in the category of neither person reoffending compared with 16.2% for the whole sample. Once again, using binomial probabilities, those in the matched methadone group were **not** more likely to be committing more serious offences than those in the comparison group ( $p > .1$ ).

**Table 10: Comparing Seriousness of most serious Offence For Those Released At Least 12 Months**

		Total N=75 %
More serious	more serious than comparison	22.7
	comparison did not re-offend	26.7
		49.4
Less serious:	less serious than comparison	24.0
	methadone did not re-offend	14.7
		38.7
Equally serious:	equal seriousness of offence	5.3
	neither one in pair re-offended	6.7
		12.0

**h) Types of Sentences Received Since Release**

There are essentially four types of sentences handed down by the courts in N.S.W., which include gaol terms, community service orders, good behaviour bonds, and fines. Variations of these can include periodic detention orders, and good behaviour bonds with or without the supervision of a Probation and Parole Officer. These variations have not been distinguished in this section, i.e. periodic detention is not differentiated from other gaol terms (hard labour, penal servitude), and no distinction is made between good behaviour bonds with or without supervision. Another type of penalty, called rising of the court (which involves being sentenced to the duration of the court session), is sometimes given for minor offences but is not reported here as a penalty (although the offences resulting in this penalty have been counted and analysed in other parts of this report).

The most common type of penalty received by those in the methadone group was a further gaol term (37.7%) followed by a fine (29.1%), then a good behaviour bond (9.4%). The community service order was the least frequent type of penalty received (2.2%).

Those in the matched methadone group were significantly more likely to receive a gaol sentence than those in the comparison group ( $X^2_1 = 4.64, .025 < p < .05$ ) (see Figure 6). Those in the comparison group were slightly more likely to receive a fine (31.2%) than the matched methadone group (22.7%), although this difference was not statistically significant ( $X^2_1 = 2.8, p < .1$ ). There were no significant differences between the two groups in the frequencies of receiving either a good behaviour bond or a community service order.

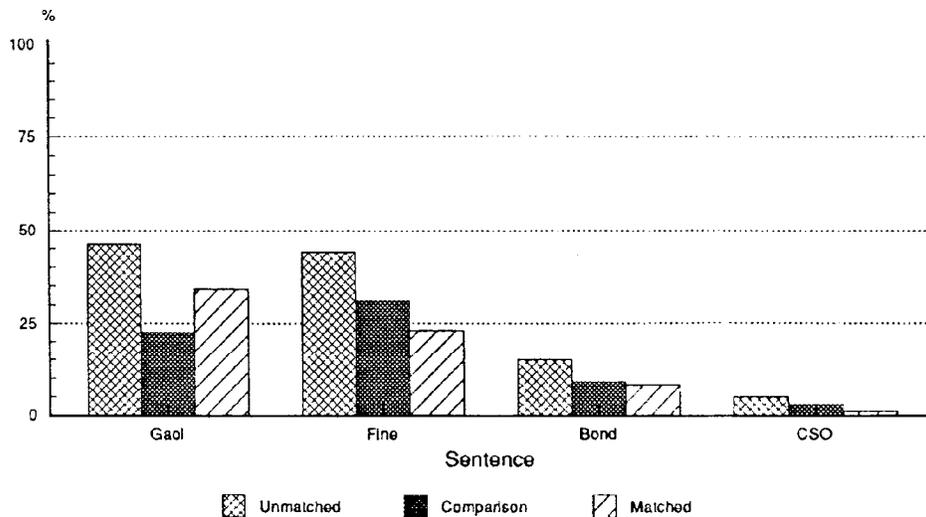
**Table 11: Types of Sentences Received Since Release**

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	N=154 %
Gaol sentence	37.7	46.4	33.7	22.7
Fine	29.1	43.5	22.7	31.2
Good behaviour bond	9.4	14.5	7.1	9.7
Community service order	2.2	5.8	0.6	2.6

(Note: Subjects may have received any combination of the above sentences, hence categories are not mutually exclusive).

It is very important to note that the above figures are an **under** estimation of the real incidences because some cases are still unresolved in court. Hence, while the (alleged) offences are known, the penalties for these offences are not.

**Figure 6. Types of Sentences Received**



**l) Length of Further Gaol Sentences**

The majority of the methadone group had not received a further gaol sentence at the time of data collection for this project (62.3%).

However, for those of the methadone group who are known to have received a further gaol sentence (37.7%), the average length of that sentence was 26.4 months. The range of head sentences received since release for this group was two months to 180 months (15 years).

Those in the matched methadone group received the longest average head sentences (30.9 months), but they were not significantly longer than those of the comparison group (24.5 months on average) ( $t_{85} = 1.0, p > .25$ ).

**Table 12: Length of Further Gaol Sentences**

	Methadone		Comparison	
	Total N=84 %	Unmatched N=32 %	Matched N=52 %	N=35 %
6 months or less	31	34	29	20
7 - 12 months	23	31	17	26
13 - 24 months	19	22	17	31
25 - 48 months	13	6	17	9
49 - 96 months	10	3	13	14
More than 96 months	5	3	6	-
Average length	26.4	19.1	30.9	24.5

**j) Per Cent of Time Spent In Gaol Since Release**

On average, the methadone sample spent 81.5% of their time since release out of gaol. This measure was calculated by dividing, for each person, the time spent out of gaol since their release by the total time since their release.

Those in the matched methadone group spent the highest average percentage of time in gaol (19.5%); significantly higher than that for the comparison group (12.9%) ( $t_{306} = 2.13, p < .05$ ), i.e. those in the matched group spent more time in gaol (on average) than those in the comparison group.

**Table 13: Per Cent of Time Spent Out of Gaol Since Release**

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	N=154 %
1 - 20%	4.0	2.9	4.5	5.2
21 - 40%	9.9	2.9	12.9	4.5
41 - 60%	6.7	8.7	5.8	4.5
61 - 80%	11.7	15.9	9.7	6.5
81 - 90%	7.6	14.5	4.5	5.2
91 - 99%	7.6	13.0	5.2	6.5
100%	52.5	42.1	57.1	67.5
Average % in	18.5	16.4	19.5	12.9

**k) Number of Outstanding Charges**

As has been previously mentioned in this report, at the time this research was conducted, not all charges had been finalised in the courts, particularly the more serious matters being heard in the District Courts.

It was decided that these matters should be included in some way in the research, since not to do so would be an under estimation of criminal recidivism.

The majority of the methadone sample (58%) had no outstanding cases to be heard in court. The average number of outstanding charges for this group was 1.2.

There were no significant differences in numbers of unfinalised cases between the matched methadone and comparison groups.

**Table 14: Number of Outstanding Charges**

	Methadone		Comparison	
	Total N=223 %	Unmatched N=69 %	Matched N=154 %	N=154 %
None	58	52	60	68
1	19	19	19	9
2 - 3	13	17	11	15
4 - 6	4	3	5	5
7 - 9	3	3	3	3
10 +	2	6	1	-
Average number	1.2	1.7	1.0	0.9

**l) Summary of Differences Between The Matched and Comparison Groups**

The various measures of criminal recidivism described above yield several areas of significant difference between the matched methadone and comparison groups. There were also a number of comparisons made which revealed no difference between the two groups.

The four comparisons showing significant differences were:

- i) matched methadone group had more convictions/charges in court (3.6 on average) than the comparison group (2.6 on average) ( $p < .05$ );
- ii) matched methadone group had more actual convictions (2.6 on average) than the comparison group (1.6 on average) ( $p < .05$ );
- iii) matched methadone group were more likely than the comparison group to receive a further gaol sentence (33.7% versus 22.7%) ( $p < .05$ );
- iv) matched methadone group spent a higher percentage of time since release in gaol (19.5% on average) than the comparison group (12.9% on average) ( $p < .05$ ).

There were two areas of marginal (almost significant) difference, namely:

- i) matched methadone group were slightly more likely to be reincarcerated (42.9%) than the comparison group (32.5%) ( $p < .1$ );
- ii) comparison group were slightly more likely to receive a fine (31.2%) than the matched group (22.7%) ( $p < .1$ ).

In the following areas, there was no significant difference:

- i) the two groups were equally likely to be reconvicted/charged in court ( $p > .1$ );
- ii) both groups were equally likely to receive an actual conviction ( $p > .6$ ) (N.B. this measure does not include unfinalised cases);
- iii) the two groups committed similar types of most serious offence since release ( $\chi^2_8 = 3.53$ ,  $p > .85$ );
- iv) the matched pairs measure of seriousness of offence was not significantly different for the two groups ( $p > .1$ );
- v) the length of further gaol sentences received was similar for each group ( $p > .25$ );
- vi) the two groups had similar (average) numbers of outstanding charges ( $p > .1$ ).

### 3.4 Recidivism Measures: Results of Pre-Post Comparison

The results reported in this section refer only to those in the methadone sample who were 'at risk' for at least three months after their release from gaol on the prison methadone program (recall that 'at risk' time is time since release spent out of gaol). This sample comprised 190 subjects from a possible 223. Of the 33 people not included in the analysis, 16 were released after 30th April, 1988, and hence had not been released for three months. The other 17 had been released for longer than three months but had spent time in gaol which caused their at risk time to be less than three months. This analysis does not include any subjects from the comparison group. In addition, no distinction was made between the matched and unmatched groups for this analysis.

As was mentioned in the methodology section of this report, the analysis involves comparing the seriousness of offences committed before and after an episode on the prison methadone program, in terms of both number and type of offences.

In all of the following calculations, the times used for comparing before with after are equivalent 'at risk' times for each individual, and range from three months up to 25.5 months.

When reading this section it should be kept in mind that there are several methodological problems with this type of 'pre-post' analysis which may seriously affect the interpretation of results. These issues shall be raised in the discussion.

#### a) Comparison of Seriousness of Offence Before and After an Episode on the N.S.W. Prison Methadone Program

Almost one in four (24.7%) of the methadone sample had committed more serious offences since release than in an equivalent time prior to their episode on the prison methadone program. The majority (68.9%) had committed less serious offences since release. This includes 28.4% who had not reoffended since release. The remaining 6.3% had committed offences of equal seriousness to prior to their incarceration.

In order to partly overcome the effect of removing 33 subjects from this part of the analysis, calculations were made which included values for these 33 people. Hence, while it was perhaps methodologically unsound to compare at risk times of less than three months (both before and after), it was of interest to know what effect (if any) these extra people would have on the results (particularly for those who had spent long periods incarcerated since release). The effect was only minimal, as can be seen in Table 15 below.

**Table 15: Pre-Post Comparison of Seriousness of Offence**

	Total N=190 %	All sample including if at risk < 3 months. N=223 %
More serious than pre-methadone	40.5	24.7
Less serious than pre-methadone	6.3	37.7
Equal seriousness	28.4	7.6
Not reoffended since release	28.4	29.6

It is also of interest to note that those who had been released (not at risk) for at least 12 months were significantly more likely to have committed more serious offences since their release than those released for less than 12 months ( $\chi^2_3 = 28.2$ ,  $p < .001$ ).

**Table 16: Pre-Post Comparison By Time Since Release**

	Released <12 months N=72 %	Released ≥ 12 months N=118 %
More serious than pre-methadone	29.2	13.9
Less serious than pre-methadone	6.9	47.5
Equal seriousness	50.0	5.9
Not reoffended since release	50.0	15.3

**b) Comparison of Number of Convictions/Charges In Court Since Release With Number Prior to Imprisonment**

The 190 methadone releasees who had been at risk for at least three months committed significantly fewer offences since their release (4.6 on average) than in the equivalent period prior to their incarceration (14.8 on average) ( $t_{189} = 10.1, p < .005$ ). Table 17 shows the distributions of number of convictions since and prior to release.

Similarly, those who had been released for at least 12 months had committed fewer offences since release (6.4 on average) than prior to gaol (16.7 on average) ( $t_{117} = 7.7, p < .005$ ).

	Prior to imprisonment N=190 %	Since release N=190 %
None	-	28
1 - 2	4	22
3 - 4	6	14
5 - 6	14	11
7 - 9	13	11
10 - 15	33	8
16 - 20	12	3
21 - 30	12	2
31 - 40	2	1
More than 40	5	1
Average number	14.8	4.6

**c) Comparison of Types of Most Serious Offence Committed Since Release and Prior to Incarceration**

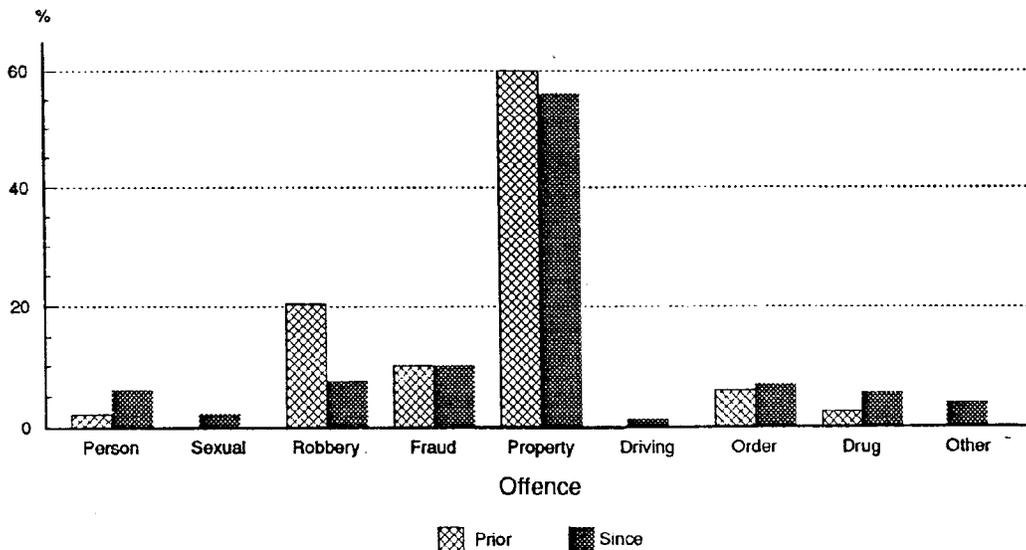
Only those people who had reoffended since release (i.e. had at least one conviction/charge in court) were used for this part of the analysis. This sub-sample consisted of 136 people.

The types of most serious offence committed since release were significantly different from those committed prior to incarceration ( $\chi^2_8 = 20.74, .005 < p < .01$ ). Specifically, this difference was in the category of robbery offences, with less robberies being committed since release (8%) than prior to their episode in gaol (20%). Additionally, more assault offences were committed after release (6%) than before incarceration (2%), although the numbers are small in this category.

By far the most common types of most serious offence, committed both before and after release were the 'other property' offences, which include (for example) break, enter and steal, car theft, and goods in custody.

	Prior to incarceration N=136 %	Since Release N=136 %
Assault/homicide	2	6
Sexual offences	-	2
Robbery	20	8
Fraud	10	10
Other property	60	56
Driving offences	-	1
Against order	6	7
Drug offences	3	6
Others	-	4

**Figure 7. Types of Most Serious Prior to Incarceration Since Release for those who Reoffended**



### 3.5 Retention on Community Methadone Programs

The available information about methadone treatment allowed times retained in community methadone treatment to be calculated for each individual. There were various reasons for termination of community methadone treatment, including being returned to gaol, or voluntarily or involuntarily ceasing treatment. However, it was not possible to consistently distinguish between the latter two categories. Transfers between community programs were not counted as terminations from treatment.

#### a) Descriptive Information

As of 31st July, 1988, 33.6% of the total methadone sample were continuing community methadone treatment, and had been since their release. Just over one-third (34.5%) had stopped treatment either of their own accord or involuntarily, while 31.8% stopped collecting from the community units when they were reincarcerated.

There were some significant differences between these three subgroups, which include:

- i) those who stopped due to reincarceration had more convictions since release (7.9 on average) than those who stopped voluntarily/involuntarily (4.7 on average), who in turn had more convictions than those who were continuing on community programs (0.9 on average) ( $F_{2,220} = 31.23$ ,  $p < .0001$ );
- ii) those in the continuing treatment group had been released for shorter times on average (9.4 months) than either the stopped voluntarily/involuntarily group (14.5 months) or the reincarcerated group (15.0 months) ( $F_{2,220} = 15.19$ ,  $p < .0001$ );
- iii) more females had stopped treatment voluntarily/involuntarily (46.5%) than males (25%), whilst more males were continuing treatment (40.3%) than females (25.3%) ( $X^2_2 = 11.77$ ,  $P < .005$ );
- iv) parolees were more likely to be continuing treatment (46%) than either probationers (27.9%) or those released to remission (20.7%) ( $p < .03$ );
- v) over half of those who had committed robbery as their most serious prior offence (52.3%) were continuing treatment, whereas 61.1% of those with fraud as their most serious prior offence had stopped methadone treatment either voluntarily or involuntarily.

#### b) Time Spent on Community Methadone Programs

The average length of time spent on community programs for the whole sample was 6.0 months. Those who had stopped voluntarily/involuntarily spent the shortest times in community methadone treatment (4.2 months on average), while those terminated due to reincarceration spent an average of 4.6 months in community methadone treatment. Those continually on methadone since release spent the longest times in treatment (obviously!) - 9.4 months on average.

Of those who stopped treatment voluntarily/involuntarily, almost one-third (32.5%) did so within one month. In addition, 79.3% of this 'stopped' group had terminated treatment within six months. For those who had stopped community treatment due to reincarceration, the majority (70.4%) were returned to gaol within six months. For the continuing group, the range of times spent in treatment ranged from one month to 25 months.

**Table 19: Time on Community Methadone Programs By Status**

	Methadone Status			
	Total N=223 %	Reincar- cerated N=71 %	Stopped vol./invol. N=77 %	Continuously on N=75 %
≤ 1 month	17.5	19.7	32.5	-
> 1 ≤ 3 months	22.9	26.8	24.7	20.0
> 3 ≤ 6 months	23.3	23.9	22.1	21.3
> 6 ≤ 9 months	13.0	15.5	10.4	12.0
> 9 ≤ 12 months	8.1	9.9	1.3	13.3
> 12 ≤ 18 months	10.8	4.2	6.5	21.3
> 18 months	4.5	-	2.6	12.0
Average time	6.0	4.6	4.2	9.4

**Note:** some of those in the stopped voluntarily/involuntarily group may also have been reincarcerated.

It is valuable to also look at the sub-sample of the methadone group who had been released for at least 12 months ( $n=121$ ), since this gives a clearer picture of the time in treatment issue without the confounding factor of short times since release.

Of this subgroup, only 22.3% were continuing community methadone treatment (and had been since their release), while 38% had stopped due to reincarceration and 39.6% had stopped either voluntarily or involuntarily. The average length of time spent on community programs for this group was 8.1 months.

The pattern of retention in treatment was similar for this group (i.e. those released for at least 12 months), to that for the whole methadone sample. The majority of those who stopped treatment either voluntarily or involuntarily tended

to do so within six months (70.8%). Similarly, if treatment was terminated due to reincarceration, this usually happened within six months (56.5%).

Those in the stopped group (i.e. voluntarily/involuntarily) who did so after 12 months (14.6%) could possibly be considered as successful completions in methadone treatment, however it is not possible to conclude this from the available data.

**Table 20: Retention in Community Methadone Treatment For Those Released At Least 12 Months**

	Methadone Status			
	Total N=121 %	Reincar- cerated N=46 %	Stopped vol/invol N=48 %	Continuously on N=27 %
≤ 1 month	13.2	13.0	20.8	-
> 1 ≤ 3 months	15.7	17.4	22.9	-
> 3 ≤ 6 months	20.7	26.1	27.1	-
> 6 ≤ 9 months	13.2	21.7	12.5	-
> 9 ≤ 12 months	8.3	15.2	2.1	7.4
> 12 ≤ 8 months	19.8	6.5	10.4	59.3
> 18 months	9.1	-	4.2	33.3
Average time	8.1	5.8	5.5	16.6

If we look only at those who had been released for less than 12 months, a different pattern of retention in treatment emerges. Of those who stopped either voluntarily or involuntarily in this group, over half (51.7%) stopped within one month. Only 20.8% of those released for at least 12 months had stopped (voluntarily/involuntarily) within one month. This difference is not a function of longer times since release, since the whole sample had been released for at least one month. Hence the difference appears to be one which is related to changes in the program over time. This issue will be raised further in the discussion section of this report.

#### c) Number of Subsequent Episodes on Community Methadone Treatment For Those Who Stopped Treatment

The results reported above fail to take into account that people may have subsequent episodes on community methadone programs. This part of the report deals with the numbers of subsequent episodes on community methadone treatment for those who stopped due either to reincarceration or voluntarily/involuntarily. It is more useful to look at these results only for those who have been released for at least 12 months, since those released for shorter times may not yet have had another chance to restart methadone treatment.

Over three-quarters (76.1%) of those who stopped community methadone treatment due to reincarceration had at least one additional experience with community methadone treatment, with 23.9% having at least two

subsequent treatment episodes. These figures include people who continued on methadone whilst in gaol and were re-released.

In contrast, of those who stopped community methadone treatment either of their own accord or involuntarily, only 43.7% had at least one additional episode on methadone in the community, with only 6.3% having two subsequent treatment episodes.

#### d) Which Variables Predict Who Will Continue Community Methadone Treatment?

**Table 21: Number of Subsequent Episodes on Community Methadone Treatment For Those Released At Least 12 Months**

No. of subsequent episodes	Reincar- cerated N=46 %	Stopped voluntarily/ involuntarily N=48 %
	0	23.9
1	52.2	37.5
2	13.0	6.3
3-4	8.7	-
5-6	2.2	-

A discriminant analysis was conducted in order to determine which combination of factors would best discriminate between those who continue community methadone treatment and those who do not (i.e. those who were reincarcerated or who stopped voluntarily/involuntarily).

Six of the variables which were measured in this research were considered to be possible predictors of the above mentioned outcome. They include: age, sex, time since release, type of release (parole versus others), number of prior convictions in a certain time frame, and type of most serious prior offence in that time frame (robbery versus others).

The combination of time since release, type of most serious prior offence (robbery versus others), type of release (parole versus others), and age was found to be predictive of whether or not a person stayed in community methadone treatment following their release from gaol. This combination of variables correctly classified 74% of cases when applied to the methadone sample. A person's sex and their number of prior convictions were not related to whether or not a person continued methadone treatment in the community.

Specifically, those continuing community treatment were likely to:

- have been released for shorter times than those who stopped;
- have robbery as their most serious prior offence, more so than those who stopped treatment;
- have been released to parole more often than those who stopped; and

d) be slightly older than those who stopped.

This combination of variables was more effective at classifying those who stopped community treatment (85.8% correct) than those continuing treatment (50.7% correct). Therefore, it would not be advisable to use these variables as a means of selecting who will participate in the prison methadone program.

#### e) Community Methadone Treatment For the Comparison Group

Some of those who were chosen for the comparison group (on the proviso that they were not on the prison methadone program) did go onto community methadone treatment programs after their release and before 31st July, 1988. It was necessary to find how many of the comparison group did go on methadone since this may have affected recidivism measures.

There were 33 people of the 154 in the comparison group (21.4%) who had started methadone treatment in the community, all at various times up till 31st July, 1988.

These 33 people were compared with the remainder of the comparison group, to ascertain if there were differences in reincarceration or reconviction rates. The two groups were **not** different from each other in any of the following variables: rate of reincarceration ( $X^2_1 = .11, p > .7$ ), whether or not they were convicted/charged in court ( $X^2_1 = 2.09, p > .1$ ), average number of convictions since release ( $t_{152} = 1.08, p > .25$ ), percentage of time spent in gaol since release ( $t_{152} = 1.19, p > .2$ ), and age ( $t_{152} = .61, p > .5$ ).

Therefore it was concluded that those who did go on methadone in the comparison group would not affect (i.e. increase or decrease) recidivism rates for the comparison group as a whole.

## DISCUSSION

There are three major findings of this research which reflect criminal recidivism rates and rates of retention in community methadone treatment. These three findings and the particular problems associated with the interpretation of each will be discussed separately below. In addition, there are several general methodological issues which will be discussed at a later stage of this section, along with implications of the various results of this research.

#### a) Comparison of Recidivism Rates

The first major finding of this research compares the recidivism rates of those released from gaol on the prison methadone program with recidivism rates of a suitable comparison group. The most important of the many measures which comprise criminal recidivism revealed no significant differences between the two groups. Specifically, the matched methadone and comparison groups were equally likely to be reincarcerated and to be reconvicted/charged in court. However, the matched methadone group had **more** convictions/charges on average than the comparison group, were more likely to receive a further gaol term, and spent a higher percentage of their at risk time in gaol than the comparison group.

Those released from gaol on the prison methadone program did not perform as well as they may have been expected to. It was anticipated that they would have lower criminal recidivism rates than those in the comparison group (who were not on methadone), since methadone maintenance treatment is intended (amongst other things) to reduce levels of criminal activity associated with drug use. What in fact happened was that on a number of measures the methadone group did not perform as well as the comparison group.

One particular problem with this method of comparison is the question of the suitability of the chosen comparison group. The major consideration in assessing the suitability of the comparison group is that it is not known why the comparison group were **not** on the prison methadone program. It may be that some of the comparison group tried to get onto the program and were either considered unsuitable or there were insufficient places on the program. Others would undoubtedly have chosen **not** to apply for the program, in which case they may have a less serious addiction to those on the methadone program or be at an earlier stage of their drug 'career', or believe that other types of drug treatment would be more suited to them than methadone. It is not known what effect, if any, this difference has on subsequent conviction rates.

Another problem is that some of those in the comparison group did go on community methadone programs following their release. However, when these people were compared with those in the comparison group who did **not** go on methadone after release, there was no difference in reincarceration or reconviction rates between the two groups.

Despite these problems, it is believed that the chosen comparison group was an appropriate choice, given that they had been released for the same length of time, were the same sex, had similar types of post-release supervision, had been serving sentences of comparable length

and also had committed offence(s) to support an illegal drug habit.

#### **b. Pre-Post Comparison**

The second major stage of the research was the results of a pre-post comparison, whereby the offences committed prior to going on methadone in gaol (within a certain time frame) are compared to those committed subsequently. This comparison involved only those who were released from gaol on the prison methadone program.

Overall, this comparison showed that fewer offences were being committed following an episode on the prison program, and that fewer robbery offences were committed since release than before imprisonment. However, it also showed that one-quarter (24.7%) of the group had committed more serious offences since release than in the equivalent time prior to their incarceration, and this figure rose to 31.4% for those who had been released for at least one year. This percentage is concerningly high.

This method of comparison assumes that the conditions or circumstances of individuals are the same following release as they are prior to incarceration. This assumption is a questionable one for several reasons, for example:

- i) the time immediately before incarceration may not be typical of an offender's criminal activity, since they may be at a crisis point in which case pre-gaol crime rates would be an overestimate and any post-gaol figures would look 'good' in comparison;
- ii) court delays mean that convictions may be counted in the pre-gaol period when they were in fact committed outside the particular at risk time;
- iii) there may be a pattern of reinvolvement with crime, whereby after release from gaol an offender may gradually start to reoffend and continue to increase crime rates. In other words, recidivism for many ex-prisoners may just be a matter of time, and due to the often short times since release measured in this project, the pre-post measure may not be a real reflection of crime rates;
- iv) the majority of the sample were under some kind of after-care community supervision (e.g. probation, parole, etc.) following release, and thus may be less likely to commit further crimes for fear of being breached or revoked, whereas pre-gaol a much smaller number of the sample would be under community supervision.

Many of these above mentioned problems have been minimised by looking at the results of

those people released for at least 12 months. For this group (as for the whole sample), fewer offences (on average) were committed following an episode on the prison methadone program.

This pre-post method also assumes that any reductions in criminal activity can be attributed to participation on the prison methadone program. This assumption is also questionable as it may be that other factors, such as age, are related to the reduction. Gandossy, Williams, Cohen, and Harwood (1980) point out evidence showing that criminality declines with age, and that what may be "an occurrence in the natural history of addiction" should not be interpreted necessarily as a success of treatment. It would have been useful to look at the criminal histories of the comparison group to see if they too had reduced crime rates following release from gaol.

#### **c. Retention Rates on Community Methadone Programs**

The third main finding of the research concerns retention rates on community methadone programs. There were no expectations about retention rates nor any suitable data for comparison purposes in this area, so it is difficult to make conclusions about the results and whether or not they are 'acceptable'. The data were calculated for the methadone subjects released from gaol at various times (ranging over two years), so that comparison with results of other research projects is also difficult.

One-third (33.6%) of those released from gaol on the prison methadone program had been on community programs continuously since their release. The previous study which also looked at this issue (Gorta, 1987) found that 57.1% of those released from gaol on methadone were still on community programs. However, the figures are not directly comparable because the data from the present study include people who have been released for longer times than those in the prior study.

For those who had been released for at least 12 months, only 22.3% had continuously been on community methadone programs since their release. The other 77.7% had stopped community treatment due either to reincarceration, or voluntarily/ involuntarily. The majority of those who stopped treatment of their own accord or involuntarily did so within six months (70.8%), perhaps suggesting that those people were not suited to methadone maintenance treatment.

It is also of interest to note that of the group who stopped community treatment due to reincarceration, the majority (76.1%) had at least one subsequent episode of community methadone treatment; whereas only 43.7% of those who stopped either of their own accord or

involuntarily had another episode of community methadone treatment.

Through discriminant analysis, it was possible to correctly identify 74% of methadone releasees as either continuing community treatment or stopping treatment. Those continuing treatment differed from those who stopped in that they were more likely to have been released for shorter times, to have robbery as their most serious prior offence, to have been released to parole, and to be slightly older than those who stopped. It would not, however, be advisable (or fair) to choose for acceptance to the prison methadone program those who suited the above criteria, as there is a whole range of other factors which affect success or failure in methadone treatment and which have not been measured in this research.

#### d. General Discussion Issues

There is a particular difficulty in evaluating the N.S.W. prison methadone program as it has evolved and changed over the time frame for this research. Throughout 1986 and most of 1987, the program was essentially a pilot pre-release program with quite specific criteria for acceptance, e.g. having to be within three to four months of release. One of the major changes introduced in late 1987 was that reducing the spread of AIDS (and Hepatitis B) through needle sharing in gaol became a high priority. It was thought that giving people methadone would reduce their desire for heroin and hence their need to share needles.

Because of this priority, inmates who are likely to share needles while in prison are considered for entry on the program, which means that inmates who may not otherwise have been suitable for methadone maintenance could be placed on the program.

One of the effects of this program change is evidenced by the following result. Of those who had been released from gaol for less than 12 months (which broadly coincides with when the program changed), and who had stopped community methadone treatment either voluntarily or involuntarily, 51.7% had stopped within one month. This is in comparison with 20.8% for those released for at least one year (and who stopped voluntarily/involuntarily). This difference is not a function of times since release because all of the sample had been released for at least one month. Rather, this difference is probably due to the above-mentioned changing emphasis of the program. Those who discontinue treatment voluntarily or involuntarily within one month of release could not be considered as successes of methadone maintenance treatment, and the fact that the number of people in this category has increased is concerning.

This may be an acceptable outcome if methadone treatment has been effective in

reducing the spread of AIDS in gaol. If methadone treatment has had little or no effect in terms of stopping people sharing needles (and thus reducing the spread of AIDS in gaol), the requirements for entry onto the prison program should be tightened. Further research is required to determine inmates' perceptions of the effectiveness of methadone maintenance in reducing the spread of AIDS in prison, as well as any objective information which may help to quantify this issue.

Another major issue which requires discussion is the complex relationship between drug use and crime. One of the major objectives of methadone maintenance treatment is to reduce crime rates through reducing the need for heroin use. The key assumption behind this objective (i.e. that heroin abuse necessitates the commission of crimes) has been questioned by recent research. Several researchers have pointed out that a large proportion of income needed for heroin consumption is generated by other than illegal means, for example, legitimate employment, public benefits, contributions from family and friends, and through the bartering of services (Gandossy et al, 1980; Gropper, 1985; Inciardi, 1981; Wardlaw, 1978). Nevertheless, it is generally agreed in the literature that levels of criminal activity decrease significantly during periods of non-addiction to heroin (Ball et al., 1981 in Inciardi, 1981; Bennett and Wright, 1986; Dobinson and Ward, 1987; Gropper, 1985).

There are many factors which will affect an individual's drug-crime career, but it is accepted that during periods of addiction to heroin, the criminal activities of those involved are likely to increase. Therefore, it is reasonable to expect that participation in methadone maintenance programs should reduce levels of crime, provided that clients are not using large amounts of heroin in addition to methadone.

It is difficult in this research to attribute success or failure (in terms of post-gaol criminal activity) to methadone, since it was difficult to ascertain whether or not a person was on methadone at the time of committing an offence. That is, the dates used in this research are dates of court appearances and not of offence or arrest dates, so that for those who stopped methadone treatment voluntarily/involuntarily, we could not reliably determine the contribution of methadone maintenance treatment to post-gaol criminal activity. It was possible, though, to look at those who were continuously on methadone in the community since their release, and to see that these people had fewer convictions/charges (0.9 on average) than those who stopped community treatment (6.2 on average). Obviously, methadone maintenance treatment is working for some people in terms of reducing their criminal activity. What is concerning is that only one-third of the sample (and only one fifth of those released

at least a year) were in this continuously on methadone group. While methadone apparently works for this group, it did not work for the group who were reincarcerated and who had been on methadone at least up until their return to gaol, since they **were** on methadone at the time of committing a further offence. This 31.8% of the sample could perhaps be considered failures of methadone maintenance treatment in terms of not having stopped criminal activity.

Another important point to make about the research presented in this report is that the results are based on record data, which means that while we know what has happened to those released from gaol on the prison methadone program, we do not know the reasons why various events happen. A research project is planned for 1989/90 which will involve interviewing members of both the methadone and comparison groups who are in gaol to find out how and why things went wrong for them.

It is also entirely possible that post-gaol criminal activity could be reduced by improving other aspects of ex-prisoners' lives, in addition to addressing their drug problems. Other problems, such as lack of money or accommodation, poor chances of employment, and lack of general support may be causing these people to commit

further crimes. Assistance which addresses these problems would undoubtedly be beneficial in terms of reducing the need to commit crime.

In sum, then, it is evident that methadone maintenance treatment which is initiated in prison and followed through in the community is assisting **some** people to reduce their criminal activities. It is also evident that such methadone treatment is **not** assisting others who continue to offend and often end up in prison again.

The problem lies in reliably predicting those who will benefit from this type of treatment. It is generally agreed that it is extremely difficult to predict who will succeed or fail in certain types of treatment.

Any final conclusions to be made about the prison methadone program must take into account that there are other objectives of the program in addition to reducing heroin-related crime. These include reducing the incidence of intravenous heroin use by prisoners and as a result of this, reducing the spread of HIV and Hepatitis B virus via needle sharing. Two earlier studies addressed the former issue, with results showing minimal heroin use in prison, but fairly widespread illicit drug use following release. The objective relating to the spread of AIDS has not yet been evaluated.

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