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# ***Electronic Monitoring in Canada***

James Bonta

Suzanne Wallace-Capretta

Jennifer Rooney

**Solicitor General Canada**

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**TABLE OF CONTENTS**

**ACKNOWLEDGEMENTS..... I**

**EXECUTIVE SUMMARY ..... V**

**CHAPTER I. INTRODUCTION..... 1**

    The Promise of Technology for Effective Offender Supervision..... 1

    Does EM Widen the Net? ..... 3

    Does EM Reduce Recidivism? ..... 5

    A Cost-Effective Alternative? ..... 7

    The Role of Treatment..... 9

**CHAPTER II. THE THREE PROVINCIAL EM PROGRAMS ..... 11**

    Data Collection Methodology..... 11

    Newfoundland: Highlights from the Interim Report (April, 1998) ..... 14

    Saskatchewan: Highlights from the Interim Report (January, 1998) ..... 17

    British Columbia: Highlights from the Interim Report (April, 1997) ..... 19

**CHAPTER III. CLIENT SELECTION AND PROGRAM PROCESSES ..... 21**

    The EM Offenders ..... 22

    Program Processes ..... 26

**CHAPTER IV. PROGRAM EFFECTIVENESS..... 39**

    What Factors Relate to Program Success? ..... 39

    Recidivism ..... 42

    The Effectiveness of Sanctions: EM vs Probation vs Prison..... 46

    The Newfoundland Treatment Program ..... 49

**CHAPTER V. GENERAL SUMMARY AND CONCLUSIONS ..... 53**

**REFERENCES..... 55**



## **EXECUTIVE SUMMARY**

Electronic monitoring (EM) is a relatively recent innovation intended to enhance compliance with house arrest. Offenders are placed under community supervision with the condition that they stay in their homes with some exceptions to attend work or other legitimate activities. Electronic monitoring equipment, often in the form of bracelets worn about the ankle, emit signals to a computer within the correctional agency ensuring knowledge about the offender's whereabouts. The goals of electronic monitoring programs vary. Some programs seek a less costly diversion of offenders from imprisonment and others look to reduce the risk of re-offending.

EM programs were first established in the United States in the 1980s and their use has spread to other countries around the world. In Canada, EM programs are in operation in four provinces. The present evaluation focused on EM in three provinces: British Columbia (B.C.), Saskatchewan and Newfoundland. Although the three provinces used similar equipment, how the programs operated varied across location. Two of the programs (B.C. and Newfoundland) are corrections based, selecting sentenced inmates from area prisons. The EM program in Saskatchewan is court based where the judge places offenders on probation with a condition of electronic monitoring. Differences also exist in terms of supervision and treatment requirements. EM offenders in B.C. are supervised by institutional correctional officers while probation officers provide the supervision in the other provinces. In Newfoundland, EM offenders are required to attend an intensive treatment program offered in the community.

Many of the evaluations reported in the literature are plagued by the lack of adequate comparison groups and controls for offender risk and needs. As a result, there is evidence suggesting that many EM programs widen the correctional net. That is, they target relatively low risk offenders who would function well without the additional controls imposed by EM. The present evaluation not only used comparison groups of inmates and probationers, but also introduced controls for offender risk. Thus, we were in a position to investigate the impact of EM, and treatment, on offender recidivism.

Whether the EM program was corrections or court based, there was no relationship to program completion. Successful completion of EM ranged from 86% to 89% across the three provinces. Although the general type of EM program was not important in terms of program completion, it did have an effect on how offenders and staff viewed EM. Offenders who were supervised by probation officers had more favourable views of the staff than the offenders supervised by correctional officers. EM offenders from all three sites also felt that EM benefited them and that the program would prevent them from returning to crime. On the other hand, staff was quite sceptical of the program and its impact on offenders.

The longer term impact of EM was evaluated using one year, post-conviction information. Comparisons with inmates and probationers, after controlling for offender risk and needs, found that EM had no effect on recidivism. That is, the recidivism rates were comparable for all three groups. Considering that the EM offenders and probationers had similar recidivism rates, the results support the conclusion that EM programs tend to have a net-widening effect. The one potential benefit of EM was that it

appeared to enhance attendance in treatment. In Newfoundland, offenders who were on EM were more likely to stay in treatment than probationers without an EM condition.

The general offender rehabilitation literature strongly suggests that structured, cognitive-behavioural rehabilitation programs are effective in reducing recidivism. The compulsory treatment program required for EM offenders in Newfoundland was independently evaluated and found to be a promising treatment program. An effect for treatment was found when considering the risk levels of the offenders. That is, for the higher risk offenders who received treatment the recidivism rate was 31.6%. For the high risk offenders who did not receive treatment that rate was 51.1%.

There are two general findings that have important implications for policy and practice. First, we found no evidence that EM has a more significant impact on recidivism than the less intrusive, and less costly, correctional measure of probation. Thus, the “value added” of EM programs appears limited. Second, cognitive-behavioural treatment programming targeting higher risk offenders (not necessarily the highest risk) was associated with significant reductions in offender recidivism. Continued support of treatment programs for higher risk offenders, perhaps married with EM to increase treatment attendance, is suggested.



## **CHAPTER I. INTRODUCTION**

During the 1980s and early 1990s, like many countries, Canada experienced significant prison population growth. Between 1989 and 1995, the prison population grew by 22% in federal penitentiaries and 12% in provincial prisons (Canada, 1996). Internationally, Canada imprisons 129 individuals per 100,000 population. Although this rate is less than that of the United States (645/100,000), it is higher than the rates found in many European countries. For example, the incarceration rate in Norway was 84 per 100,000 in 1996 (Canada, 1998). Concerns over high incarceration rates and their associated costs have spurred many governments to seek ways to decrease prison populations or at least manage their growth.

Numerous suggestions have been made, and tried, in attempts to manage correctional population growth. They range from decriminalising certain acts to noncarceral sentencing options. Over the past two decades, governments have intensified their search for effective alternatives to incarceration. One relatively recent innovation has been the electronic monitoring of offenders in the community.

### ***The Promise of Technology for Effective Offender Supervision***

The first report of the use of electronic monitoring in the supervision of an offender was in 1984. Apparently inspired by a Spiderman cartoon, Judge Jack Love from New Mexico ordered the placement of an electronic device on the ankle of an offender to ensure his whereabouts (Fox, 1987). Essentially, electronic monitoring (EM) began as a method to enforce house arrest because it permitted the monitoring of the

offender from a remote location. Today, the technology allows a number of options for monitoring the offender. A computer can dial the telephone in an offender's home at random intervals in order to confirm his/her location. An alarm can sound if the offender strays out of range from the base unit in the home. Video cameras can be mounted near the telephone to verify visual contact and offenders can even provide breathalyser tests to ensure compliance with drug and alcohol abstinence conditions. The role of the private sector in providing the technology and the inherent competition for business will undoubtedly bring new possibilities.

Early uses of EM were limited to the monitoring and supervision of probationers. However, by 1989 probationers represented only one-quarter of the clientele. The majority of offenders in EM programs were inmates for whom EM offered a less costly sanction than incarceration. The use of EM has grown significantly. A 1989 U.S. survey (Renzema & Skelton, 1990) found 37 states using EM with 6,490 offenders on the program on any given day. The United Kingdom and other European countries have also introduced EM (Mortimer & May, 1997).

The first Canadian use of EM was in British Columbia (British Columbia Corrections Branch, 1995). It began as a pilot program in Vancouver (1987) and it was intended to provide a less costly alternative to incarceration for selected offenders. By 1992, EM was available throughout the province except in the most sparsely populated areas. In 1996, the EM program managed 300 offenders on an average day. Early reports of the program suggested that it produced a cost savings (compared to incarceration) and that it provided a number of benefits to the offender (Mainprize, 1992, 1995).

Undoubtedly, the British Columbia experience influenced other provinces. EM programs were introduced in Saskatchewan in 1990 and Newfoundland in 1994. The Yukon Territory has EM as an option, but it has never been used. More recently Ontario introduced an EM program in 1996. Ontario had earlier experimented with EM in 1989 but abandoned the program partly because an evaluation found it not to be cost-effective.

### ***Does EM Widen the Net?***

The original intention of EM was to enforce house arrest. Gradually it became a community-based alternative to incarceration. That is, offenders who would normally be imprisoned could instead be placed into an EM program. One of the major issues in any alternative to incarceration program is the possibility that the offenders given the “new” alternative would have received a community sanction were it not for the program (Nuffield, 1997). Consequently, the alternative sanction would not represent a true alternative. Rather, it would actually *increase* the costs of corrections.

A cursory review of the characteristics of offenders and program eligibility criteria reveals a portrait of an alternative program that seems to target relatively low risk offenders (see Table 1). Most programs exclude offenders who have a record of violence, which is understandable considering public sentiment. However, there are additional and sometimes, stringent screening criteria. For example, some programs deal almost exclusively with offenders convicted of impaired driving offences (Lilly et al., 1992; McGowan, 1988). The eligibility criteria often screen out from EM programs many offenders. For example, of 1,088 referrals, only 216 (19.9%) were accepted into the EM

program in Marion County, Indiana (Maxfield, & Baumer, 1990). Similarly, the pilot EM project in Ontario accepted 28.6% of the 552 inmates referred to the program.

**Table 1. Characteristics of EM Participants**

Study	Selection Criteria
Ball et al. (1988)	“approved by presentence investigation...each inmate have a good record”
Baumer et al. (1993): a) post-conviction b) pretrial c) juveniles	Nonviolent, “suspendable” offences Minor, nonviolent offences Eligible for probation/suspended sentence
Denton (1988)	Employed, DWI and attending counselling
Lilly et al. (1992)	91.5% DWI and traffic offences
Maxfield & Baumer (1990)	Nonviolent, no parole violators or offenders showing “irresponsible behavior”
McGowan (1988)	88% DWI offences
Nee (1990)	Police and prosecutor selected eligible cases
Ontario (1991)	Low risk offenders
Rogers & Jolin (1989)	98% nonviolent offenders
Roy (1997)	“stringent and limited to those who have strong family support”
Whittington (1987)	80% DWI, “stable residence and employment”, “selected lowest risk”

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Defenders of EM have argued that these programs must begin with low risk offenders in order to gain public credibility. Once the program is established as a viable option, then it could expand to include higher risk offenders for whom EM is a true

alternative to incarceration. The evidence on changes in offender profile with time is unconvincing. To illustrate, Pride, Inc. is one of the largest and longest running EM programs in the world. Lilly, Ball, Curry and McMullen (1993) examined changes in the types of offenders who went through the program over a seven year period. There was a decrease in the proportion of DWI offenders (from 67.4% to 53.7%), but this was offset by an increase in offenders convicted of driving under suspension (24.5% to 53.7%). Overall, traffic and liquor offenders comprised 94.2% of the EM participants at the beginning of the program and 91.7% seven years later.

To summarise, the prevalence of low risk offenders in the EM programs described in the literature suggest a net-widening effect. There is very little evidence that EM has provided a true alternative to incarceration. If this is true in the general case, then these findings also have implications for the cost-effectiveness issue discussed later in this report.

### ***Does EM Reduce Recidivism?***

As with most criminal justice sanctions, there is the expectation that a reduction in re-offending will occur. Evaluating the impact of EM programs on recidivism has been extremely problematic. First of all, to the best of our knowledge, there are only three studies that approximate an experimental methodology with random assignment (Cullen, Wright, & Applegate, 1996). Secondly, there are very few evaluations with appropriate comparison groups. The majority of reports on EM are limited to descriptions of outcome without any comparison groups. The results from these reports are difficult to

interpret since so many of the programs deal with low risk offenders (Table 1). Thus, the high program completion and low recidivism rates reported by these studies may simply reflect the low risk nature of the offenders and not the impact of the program – Petersilia’s (1988) “cream puff” factor.

Table 2 presents the results of studies that report *any* outcome data. We are quite generous here, including studies that have questionable comparisons and outcome measures. Unfortunately, with respect to the recidivism results, none of the studies specified the length of follow-up preventing any meaningful interpretation of this information. This summary sketch serves to highlight the poor methodological quality of most EM evaluations. The table also highlights another major problem with interpreting the success of EM. It is the problem of short program duration. In most EM programs, the offenders participate for periods of less than three months. For example, McGowan (1988) found an average stay of 36 days in EM. In the Pride program (Lilly et al., 1992), 78% of the offenders were serving sentences of less than three months. Such short stays increase the likelihood that even higher risk offenders may complete the program without incident. Thus, for a number of reasons, the high program success rates are misleading and difficult to interpret.

**Table 2. Program Completion and Recidivism Outcome on EM**

Study	Subjects	Days on EM	Success Rate (%)	Recidivism Rate (%)
Ball et al. (1988)	39 pre-jail	44	92.3	5.1
	87 post-jail	55	70.1	3.5
Baumer et al. (1993)	219 pretrial	76	73.1	
	78 postconviction	56	80.8	
Beck et al. (1990)	357 parolees	126	87.0	
Lilly et al. (1992)	415 probationers	48% less than 30	97.0	11.1
Lilly et al. (1993)	Not reported	76.2	91.3	17.2
Maxfield & Baumer (1990)	216 bailees	90 days <	73.0	
	153 parolees	90 days <	81.0	
Mortimer & May (1997)	375 "curfews"	126	87.0	
Ontario (1991)	158 inmates	44	88.0	
Renzema & Skelton (1990)	1,296 mixed	79	75.1	

### *A Cost-Effective Alternative?*

One of the promises of EM programs is reduced correctional costs. Unfortunately, because many EM programs appear to target lower risk offenders and run the risk of widening the correctional net, estimating the true cost savings is difficult. The cost-benefit analyses that have been reported in the literature have been equivocal. Ball et al. (1988) reported the results from two analyses using different assumptions. In one analysis it cost more to keep offenders in EM than in jail and in the second analysis it

cost less. The Ontario pilot project cost \$216,000 more than incarceration (Ontario, 1991). Mainprize (1992) observed that the original plans for the British Columbia program called for five officers to supervise 150 offenders. However, the Vancouver pilot project had five officers supervising 25 offenders. It was estimated that a province wide implementation to supervise 175 offenders would require 44 additional officers.

A serious problem with many cost-effectiveness analyses is the calculation of the per diem incarceration costs. The typical estimate is based upon the costs of staffing, meals, clothing and other services. Thus, the “cost” for incarcerating an offender often exceeds \$100 per day. However, once an institution is staffed and operating, the cost for incarcerating an additional individual drops dramatically. Staff salaries account for the majority of the expenses in operating an institution. Once staffing costs are fixed, any additional costs are limited to food, clothing and services. These added costs may amount to only a fraction of the average annual costs. Only if new facilities are not constructed or existing ones closed, can significant cost savings be realised.

Related to the potential cost-savings is the impact of EM on incarcerated populations. To produce significant cost-savings, EM programs must impact on the size of the custodial population (Lilly, 1992). In many studies, the proportion of offenders in EM programs to the prison population has been typically too small to have an impact. The stringent eligibility criteria for many programs limit the potential for EM to have an influence on the imprisoned population. Sometimes, even the voluntary nature of the programs has led to bizarre situations. For example, in an evaluation of a program in Kentucky, some offenders *refused* EM knowing that they would be released early because of overcrowding in the jail (Ball et al., 1988).

The possibility that EM may not offer an inexpensive alternative is evidenced by the widespread use of user fees in the United States. Approximately two-thirds of EM programs in America require offenders to contribute financially to the programs. Slightly more than half of the programs charged between \$100 and \$300 in monthly fees rising as high as \$450. In Kentucky, monthly fees were calculated based upon a maximum of “25% of the offender’s net weekly household income” (Ball et al., 1988, p. 82). Although most jurisdictions have policies that may waive the fees, it is unclear as to how often fees are waived.

Most importantly, arguments for the cost-effectiveness of EM programs are usually based upon comparisons to incarcerated offenders. Without controls for offender risk, such comparisons misinform policy-makers and the public. If significant proportions of EM participants are low risk offenders (recall Table 1), it is possible for these offenders to conduct themselves successfully in the community without the additional controls imposed by EM. Therefore, a more appropriate comparison may be probationers, or at the very least, inmates who are matched on offender risk level to the EM participants.

### ***The Role of Treatment***

For most intermediate sanctions, offender treatment services have been rarely considered (Cullen et al., 1996). In the case of EM, the problem of providing treatment is compounded by a number of factors. First, because EM is a method for ensuring house arrest, the movement of offenders is restricted. This can create obstacles in taking

advantage of available treatment programs. For example, Nee (1990) found that over 50% of the offenders in their EM program were confined to their houses for over 16 hours per day.

Also mitigating against the delivery of treatment services are the conflicting thoughts about how EM programs control criminal behaviour. Two views are typically presented. The most frequent opinion is that EM is a deterrent. Like any other sanction, punishment controls the behaviour and therefore, offender treatment is not necessary. The second view, advocated by Ball and Lilly (1986) is that EM is actually rehabilitative. By being forced to stay at home and supposedly out of trouble, the offender is able to “internalize incentives for good behavior”. Other than isolating offenders from criminal associates, it is difficult to see how being at home in some sort of quiet reflection will help resolve such typical offender problems as substance abuse and unemployment.

In summary, treatment programming is rarely a feature of EM. The reasons for this state of affairs are many. The fact remains that there is no compelling evidence from the EM literature or the general literature that correctional sanctions without a direct service component will lead to lowered recidivism (Cullen et al., 1996; Gendreau, Cullen & Bonta, 1994). Rather, some reviews of the literature suggest that sanctions by themselves are associated with increased recidivism (Andrews & Bonta, 1998).

## **CHAPTER II. THE THREE PROVINCIAL EM PROGRAMS**

Three provinces participated in the evaluation of their EM programs: British Columbia (B.C.), Saskatchewan, and Newfoundland. Although all three programs used very similar equipment (ankle bracelets with centralised computer monitoring), they differed in client targeting and program operation. The variation in EM programs made it possible to evaluate whether the type of client, how they were supervised, and the correctional context were important for the effectiveness of EM supervision. In order to document these variations, an extensive range of information was collected and interim reports for each province were completed. The interim reports did not combine information across provinces nor did they include recidivism information. This section summarises the general methodology and findings from the interim reports.

### ***Data Collection Methodology***

Standardised procedures and data collection instruments were applied across all three sites. The offenders and staff completed a number of questionnaires (copies of the questionnaires are available upon request). For the offenders, there were three sets of questionnaires. The first questionnaire, called the Self-Report Questionnaire (SRQ), asked offenders about their criminal history and personal-social situation. Where possible, the information was verified with official records. Information from the 78 item SRQ was used to calculate risk-need scores for the Level of Service Inventory – Revised (LSI-R; Andrews & Bonta, 1995) and the Manitoba Risk-Needs classification instrument (Bonta, Parkinson, Pang, Barkwell, & Wallace-Capretta, 1994). Both of these risk-needs

instruments have demonstrated empirical validity in the risk-needs classification of offenders. Motiuk, Motiuk and Bonta (1992) have also shown that reliable offender risk-needs information can be derived from the paper and pencil SRQ. The calculation of offender LSI-R and Manitoba Risk-Needs scores permitted an empirically based assessment of the risk and needs level of offenders under supervision. With this information, we were in a position to evaluate whether EM had an effect on recidivism after controlling for offender risk-needs scores.

The second questionnaire asked offenders to describe their views of the EM program (e.g., what were the benefits of the program, whether it caused them hardships, etc.). The third set of questions asked about the offenders' relationship and their views regarding the supervising officers. The supervising staff completed a parallel set of questionnaires on how they saw the program and their views of the offenders' performance on the program. Participation was voluntary and the information was for research purposes only. Compliance rates were relatively high. For example, for the SRQ compliance rates ranged from 73.2% in B.C. to nearly 100% in Newfoundland. Offenders returned their questionnaires in sealed envelopes that were collected by research staff. The offenders completed the SRQ at the beginning of EM placement. The remaining two questionnaires concerning the program were completed by the offenders and the officers at the end of the placement. Whenever possible, offenders who violated EM conditions and were returned to prison completed the "exit" questionnaires in prison.

Offenders also agreed to have their correctional and program files reviewed by research staff. Some of the file review information was used to corroborate the SRQ and provide additional information about the offenders and their program experience. Except

for Saskatchewan, where a small sample of female offenders participated ( $n = 26$ ), all the EM offenders were males. The present report is based on only the 262 male offenders. For each provincial site, a prison comparison sample was constructed (total sample size of 240). Efforts were made to select the inmates using the EM eligibility criteria from the particular province. The inmates completed the SRQ only and they gave permission to have their files reviewed. In Newfoundland and Saskatchewan, information on 30 probationers (without EM supervision) was collected. All sets of questionnaires, with slight modifications, were given to the probationers.

Finally, the EM program in Newfoundland required the offenders to attend an intensive and highly structured treatment program. This program received an independent assessment as to how closely the treatment program followed the principles of effective offender rehabilitation. The participants in the treatment program also completed a questionnaire concerning their views of treatment and their counsellors.

Data collection began in late 1995 and, in the case of Newfoundland, continued to September 1997. Post-program recidivism information was gathered from the R.C.M.P.'s Criminal History records as well as provincial records (court and correctional). Recidivism was defined as a reconviction within one year of program completion. During the course of conducting the post-program follow-up, we found that 25 offenders from B.C. had changed their original group status from the prison comparison sample to the EM program. Part way through the project, the province implemented a recruitment drive for the EM program and 25 inmates from the original prison comparison group were subsequently placed into EM. As a result, we re-assigned these 25 offenders into the EM group for this report. Thus, only SRQ and some file information were available for these

offenders explaining some of our missing data. The interim report on the program in B.C. did not account for this shift in group membership. Therefore, the results comparing EM offenders with the prison comparison group reported in the interim report no longer apply.

The final group membership for all three provinces is shown in Table 3. Newfoundland had the smallest EM program, and with the mandatory treatment requirement, yielded the fewest number of subjects. The probation samples from Newfoundland and Saskatchewan were small and the results from these comparisons should be interpreted with caution.

**Table 3. Group Membership by Province**

Province	Group		
	EM	Probation	Prison
Newfoundland	56	17	100
British Columbia	125	-	75
Saskatchewan	81	13	65
Total	262	30	240

***Newfoundland: Highlights from the Interim Report (April, 1998)***

The EM program in Newfoundland was established in November 1994. When the study began, EM was limited to the city of St. John's. EM in Newfoundland is a corrections based program. Nonviolent offenders, of moderate risk to re-offend, were drawn from the local prison and placed on temporary absences with an electronic

monitoring condition. (Low risk offenders were given temporary absences without EM). In addition to EM surveillance, the program participants were required to participate in the Learning Resources Program (LRP) provided by the John Howard Society of Newfoundland. The LRP is an intensive treatment program offering nine hours per week of group, cognitive-behavioural programming. The major treatment targets are substance abuse and anger management. Individual counselling related to employment and other personal needs are provided in addition to the group programs.

The Newfoundland program was the smallest of the three provinces and it had difficulty filling the groups offered by the LRP. As a result, the treatment program was also opened to offenders under regular probation orders. A small sample of 17 male probationers volunteered to participate in the research.

In March 1996, Dr. Paul Gendreau from the University of New Brunswick conducted an independent assessment of the LRP using the Correctional Programs Assessment Inventory (CPAI). The CPAI (Gendreau & Andrews, 1996) is a structured approach to evaluating how well a program corresponds with what is known about effective offender rehabilitation. In the absence of direct information about a program's impact on recidivism, the CPAI provides an estimate as to how successful the program may be in reducing recidivism. Programs are assessed along a number of categories (e.g., client assessment, staff characteristics, etc.) identified by research to be associated with reduced recidivism. The results of the assessment of the LRP placed the program in the top 10% of 230 programs evaluated using the CPAI. Thus, there was reason to believe that the programming aspects of the LRP were reasonable and potentially effective.

Fifty-six male offenders were placed in the EM program and all but two attended the LRP (these two offenders were fully employed and therefore, they were not available to attend treatment). Slightly more than half (56.3%) of the offenders fell in the medium and high classification ranges of the LSI-R. Consequently, the EM program did not appear to have a significant net-widening effect and the program was relatively successful in targeting those offenders that it was designed to manage. Despite the fact that most participants in the EM program were moderate to high risk, successful program completion rates were high. EM offenders averaged 72 days in the program and 87.5% completed the program without committing a new offence or a serious breach of conditions. This completion rate was significantly higher than for the probationers who attended the LRP (52.9%;  $\chi^2 = 7.09$ ,  $p < .01$ ). Although the probation sample size was quite small ( $n = 17$ ), the results suggested that the additional requirements of EM and perhaps the threat of a return to prison for non-cooperation ensured that the EM offenders completed the program.

Upon leaving the program, offenders, probation and treatment staff completed questionnaires on their views of EM and the LRP. The offenders did not find EM very disruptive to their lives and 86.2% of them thought that the EM program would keep them away from crime (only 10-15% of the staff felt that EM would have a long-term effect on recidivism). Similarly, when asked about the lasting effects of treatment, 14% of the probation officers thought that treatment would be effective in avoiding recidivism. Surprisingly, only 20% of the LRP staff thought that treatment would reduce recidivism.

These pessimistic estimates by staff may reflect the relative newness of the programs (both EM and LRP) and uncertainty about their impact.

Finally, offenders gave very favourable ratings to probation and treatment staff. Slightly more than 70% of the offenders rated their probation officer as “interested in helping me”. Eighty per cent of the offenders endorsed this statement when asked about their treatment staff. Two-thirds of the offenders felt that the treatment staff “gave me real help” (only 37.5% of the offenders felt this way about their probation officers). In summary, the EM program, together with the LRP, were viewed as a beneficial experience by the offenders.

### ***Saskatchewan: Highlights from the Interim Report (January, 1998)***

The EM program in Saskatchewan is court based. That is, the Court places offenders on intensive probation with a condition of electronic monitoring. Although probation sentences can last up to three years, the EM condition usually does not last longer than six months. EM began as a pilot project in 1990 and by 1996, EM was available to the courts across the province. At the time of the study, the Saskatchewan EM program was the second largest in the country. There were approximately 90 offenders in the program on any given day.

Data were collected on 81 male and 26 female offenders sentenced to the program in three sites (Regina, Saskatoon and Prince Albert). Also available to the courts was an Intensive Probation Supervision (IPS) program, which was very similar to the EM program. Placement into the two programs was at the discretion of the Court, supervision

was conducted by probation officers, and in both programs the supervision was more intensive than traditional probation. The major difference was that one program included EM. As a result, information was also collected on a small sample of 16 IPS offenders (13 males and 3 females).

The IPS offenders scored higher on the risk-needs scales than offenders in the EM program. This finding was surprising because we expected the EM offenders, who were under more restrictions, to represent a higher risk group of offenders. In addition, nearly 30% of the EM offenders were classified low risk by the LSI-R and the Manitoba Risk-Needs scale. Together, these two findings led to the conclusion that in Saskatchewan, EM widened the correctional net. To lend further support to this conclusion, we found program success rates did not improve with the electronic monitoring option. The findings, although not statistically significant, actually went in the opposite direction. Probationers *without* electronic monitoring showed higher success rates than probationers in the EM program (93.8% vs 84.0%).

There was some evidence, however, that EM successfully targeted subgroups of moderate risk offenders. Saskatchewan has Canada's highest incarceration rate of Aboriginal offenders. One of the goals of the EM program in the province is to target Aboriginal and female offenders and provide them with an alternative to incarceration. In this regard, a significant proportion of EM participants was of Aboriginal origin and they tended to be higher risk than the non-Aboriginal offenders in the program. Thus, the EM program appeared to function as an alternative to incarceration for Aboriginal offenders. Similar findings were found with the female offenders in the EM program. The women

scored higher on the risk-needs scales than the men suggesting that were it not for the EM program, these women would likely have been incarcerated.

On average, the probationers under electronic surveillance spent 20 weeks in the program and were seen weekly by their supervising officer. When the EM participants were asked about the program and their supervising probation officer, the responses were generally positive. Over ninety per cent (92.6%) of the offenders described their probation officers as providing “real help” and 88.6% said that they felt their probation officer understood their problems. Finally, the offenders were more optimistic that the program would help them to avoid further crime than the probation officers (85.4% vs 40.6%).

### ***British Columbia: Highlights from the Interim Report (April, 1997)***

British Columbia was the first province to establish an electronic monitoring program (1987) and it has become the largest program in Canada. The average daily count on the program often exceeded 300 offenders. The program is corrections based. However, unlike the EM program in Saskatchewan and Newfoundland, there is no particular effort to target moderate risk offenders or to require treatment attendance. The criteria for participation are: a) minimum risk to the community, b) nonviolent, and c) no more than four months remaining in his/her sentence.

One hundred male offenders participated in the study (this number increases to 125 as we explained earlier in this report). The offenders all came from the Fraser region and were fairly representative of EM offenders across the province. As the eligibility

criteria for the EM program were quite restrictive, the possibility of a net-widening effect was increased. Thus, it was not surprising to find some evidence to support a conclusion of a net-widening effect. Approximately 25% of the EM participants were classified minimum risk offenders and the average length of time in the program was the shortest of all three provinces: 37.3 days (n = 125). Although the successful program completion rate was high (89.3%), the relatively low risk sample and short stay on the program could explain this finding.

Unlike the EM programs in Newfoundland and Saskatchewan, the supervising staff in British Columbia was re-assigned to community supervision duties from their positions within prisons. That is, most EM supervisors were correctional officers rather than probation officers. The supervising staff was quite pessimistic about the crime control benefits of the EM program. Only 8% of staff felt that the program would prevent future crime. Offenders, on the other hand, were more optimistic of the crime prevention benefits of EM with 59.8% saying that they were unlikely to commit further crime. Added to this was the finding that 53.6% of the offenders reported that their supervising officers did not provide any “real help”.

### **CHAPTER III. CLIENT SELECTION AND PROGRAM PROCESSES**

The interim reports focused on the preliminary findings specific to the province where the program operated. Only cursory, across province comparisons were made. A few comparisons were made to the probationers but none to the inmate samples. These comparisons are important to evaluate EM relative to other forms of correctional control. Finally, one year post-program recidivism information became available. The present report combines the data across sites and includes an analysis of the impact of EM on recidivism. Therefore, we are in a better position to evaluate the relative merits of the different EM programs.

All three programs shared electronic surveillance as a method for supervising offenders in the community, but they also had some unique features. Although there may have been some unmeasured influences specific to a site, the major differences among sites allowed us to address some of the following questions:

- Does net-widening occur?
- Does it matter whether the offenders are referred from corrections or the courts?
- What is the effect of using probation officers as opposed to correctional officers for supervising EM offenders?
- Does treatment add value to the EM program?
- Does EM have an effect on recidivism after the monitoring stops?

Answers to these questions are presented in this report.

### ***The EM Offenders***

Information was collected on 262 offenders who participated in the EM programs from the three provinces. There was considerable variability in the personal-demographic characteristics of the EM offenders across the three provinces (Table 4). The offenders from Newfoundland showed the lowest levels of social achievement and relatively high levels of substance abuse. Their unemployment rate was 71.4% and the average grade completed in school was 9.3. Half of the offenders in the Newfoundland program reported problems with alcohol abuse and 36.4% had a current drug abuse problem. The EM participants from Saskatchewan had the lowest rates of drug abuse (17.3%) and most were married or living common-law (59.3%). Moreover, 49.1% of the offenders for whom we had ethnicity information were of Aboriginal origins (including Métis).

**Table 4. Characteristics of EM Offenders by Province**

Characteristic	n	BC	SK	NF	F/ $\chi^2$	p
Age (years)	261	30.9	31.4	28.8	1.51	ns
Grade completed	260	10.9	10.8	9.3	14.22	.001
Unemployed (%)	261	44.0	36.3	71.4	17.53	.001
Alcohol abuse (%)	260	32.3	50.6	50.9	9.10	.01
Drug abuse (%)	260	37.1	17.3	36.4	10.05	.01
Aboriginal (%)	234	4.8	49.1	0.0	73.41	.001
<u>Living Arrangement (%)</u> :	229				41.15	.001
Spouse/Common-Law		25.3	52.0	45.5		
Alone/Single parent		9.1	14.7	10.9		
Other/Group		43.4	13.3	5.5		
With Parents		22.2	20.0	38.2		
<u>Marital Status (%)</u> :	262				16.41	.01
Single		53.6	32.1	51.8		
Separated/Divorced		14.4	8.6	7.1		
Married/Common-law		32.0	59.3	41.1		

Notes: Numbers vary due to missing information; ns = nonsignificant.

Table 5 summarises criminal history and risk-needs characteristics of the EM offenders. Surprisingly, the offenders from Saskatchewan had the highest number of prior convictions (an average of 10.3). Considering that they were given probation, the

condition of EM may have been viewed as an added control needed to deal with these offenders in the community rather than in prison. It is also possible that the offenders who were in the EM program in Saskatchewan may have had a less serious criminal history. For example, the Saskatchewan EM participants had the fewest number of prior incarcerations (48.1%). With respect to the type of offence committed, the B.C. offenders showed the highest rates of liquor/traffic offences (38.4%) whereas the offenders in Newfoundland demonstrated the lowest rates of crimes against person (5.4%). Interestingly, three out of ten (30.7%) offenders in the B.C. program had been in the electronic monitoring program before.

The most important finding shown in Table 5 is that the offenders in the Newfoundland EM program were higher risk, as measured by the LSI-R, than the offenders from the other two provinces. The results from the Revised Manitoba Risk-Needs instrument, although in the expected direction, did not differentiate the three groups at a statistically significant level. The reason for this is probably because the Manitoba classification instrument has a smaller range of scores (0 – 22) than the LSI-R (0 – 54) and therefore, it is less capable of making finer distinctions among groups.

**Table 5. Criminal History and Risk Factors of EM Participants by Province**

Variable	n	BC	SK	NF	F/ $\chi^2$	p
# prior convictions	234	5.5	10.3	4.4	6.56	.01
<u>Most Serious Offence (%)</u> :	262				23.58	.01
Person		15.2	23.5	5.4		
Property		30.4	40.7	33.9		
Drug		9.6	14.8	17.9		
Liquor/Traffic		38.4	17.3	28.6		
Other		6.4	3.7	14.3		
<u>Criminal history (%)</u> :						
% Incarcerated	262	70.4	48.1	71.4	12.35	.01
% Parole/probation violation	262	41.6	39.5	41.1	.09	ns
% Violent history	261	30.4	39.5	16.4	8.31	.05
% Prior EM	251	30.7	3.7	1.8	36.69	.001
LSI-R	260	20.2	20.3	24.8	7.18	.001
Manitoba-Revised	262	9.8	9.4	10.7	2.53	ns

Notes: Numbers vary due to missing information; ns = nonsignificant

When we combine information from Tables 4 and 5, we are led to conclude that the offenders in the Newfoundland EM program represent a higher risk and higher need group. They scored higher than their counterparts from the other provinces on the LSI-R, were less educated, more likely to be unemployed and evidenced substance abuse

problems at least equal to offenders from the other two provinces. At the other end of the spectrum, EM participants in B.C. appeared to be the lowest risk group of EM offenders. Their similarities to the Saskatchewan group (similar risk-needs scores, age, grade, and employment status) raise the possibility that a non-custodial alternative would have been sufficient for many of these offenders. This possibility is explored further later in this report.

### ***Program Processes***

The three EM programs investigated in this study had some very fundamental differences in their operation. Two programs (B.C. and Newfoundland) were corrections based and one was court based (Saskatchewan). In Saskatchewan and Newfoundland, the EM offenders were supervised by probation officers and in B.C. they were supervised by correctional officers assigned to work in the community. The Newfoundland program specifically targeted moderate risk offenders and required the offenders to attend a structured, intensive treatment program. The average length of time that the offender was in the program also varied across provinces. The offenders in Saskatchewan had the longest time in EM (139.3 days), followed by Newfoundland (71.6 days) and B.C. (37.3 days;  $F(2, 254) = 151.91, p < .001$ ). All of these factors, along with others, can influence the experiences of offenders and how they and staff viewed the program. In turn, these program processes and “consumer” perceptions can potentially impact on program outcome.

***Offenders' Views of EM.*** Upon completion of electronic monitoring, or if failed and imprisoned, the offenders were asked to complete a series of questions asking them about the program. The results from the exit questionnaires are shown in Table 6. In general, the offenders who participated in the EM programs reported that they were given sufficient information about EM prior to their placement. When questions were asked about the inconveniences caused by the program, offenders from B.C. reported the least amount of dissatisfaction. Only 16% found EM to be more difficult than expected, considerably less than in the other provinces (41.5% in Saskatchewan and 37.9% in Newfoundland). The B.C. participants also reported less embarrassment with wearing the equipment and fewer disruptions in daily routines.

**Table 6. Offender Exit Questionnaire Results (% Agreeing)**

Question	n	BC	SK	NF	$\chi^2$
Given enough information about EM	193	88.0	92.3	85.7	1.18
EM was more difficult than expected	194	16.0	41.5	37.9	14.52***
Equipment was uncomfortable	194	23.0	30.8	20.7	1.64
Wearing the equipment was embarrassing	194	24.0	58.5	55.2	22.6***
EM affected my daily routine	193	62.6	76.9	86.2	7.73*
Frequency of calls was too frequent	192	4.1	6.2	20.7	7.22*
Officer visits caused problems	190	6.2	9.4	20.7	4.67
<u>Most frequently cited problem:</u>	183				
No freedom		36.2	34.4	35.7	
Following rules/curfew		16.0	18.0	7.1	
Interfered with family life		1.1	4.9	3.6	
Interfered with work		3.2	11.5	0.0	
No problems mentioned		17.0	11.5	17.9	

Notes: Numbers may vary due to missing information; \*\*\* p < .001; \* p < .05

The overall impression given by the B.C. participants was that the program was relatively easy to follow. We suspect that this finding may have been influenced by the fact that the EM offenders in B.C. had the shortest period of time in the program thereby making the program more tolerable. Although the number of days in the program was related to the offenders' reports of difficulties, statistical analysis controlling for the

length of time in the program still found the B.C. offenders reporting the fewest problems with EM.

EM programs are often thought to provide benefits beyond cost savings for institutions. The vast majority of the offenders reported positive attitudes toward the EM program. When given the statement “electronic monitoring was a fair program for me”, 90.1% agreed (responses ranged from 84.6% in Saskatchewan to 94.9% in B.C.). In addition, 90.6% reported that EM was a “good correctional program” and 85.7% said that they would recommend the program to other offenders.

Almost all of the EM participants (95.3%) saw personal benefits resulting from their participation. The offenders were asked to rate various advantages of the program. The results are shown in Table 7. Maintaining contact with the family was the most frequently endorsed benefit from the program regardless of where the program was given. From the offenders’ perspective this was seen as more important than employment related activities. Between province differences were found with respect to maintaining employment and attending treatment. Offenders from the Newfoundland program were less concerned about EM allowing them to maintain employment compared to the offenders from the other provinces. This however, may be due partly to the high unemployment rates for the Newfoundland participants and the fact that the EM program required attendance at the LRP. As shown in Table 7, the offenders in the Newfoundland program rated attending treatment as a far more important benefit of the program than did the offenders in B.C. and Saskatchewan.

**Table 7. Perceived Benefits from the EM Program: Offenders' Views (% Agree)**

Benefit	n	BC	SK	NF	p
Contact with family	180	86.3	79.3	88.9	ns
Care for children	167	37.6	44.6	50.0	ns
Seek employment	173	44.0	58.9	57.7	ns
Maintain employment	177	61.7	72.9	41.7	.05
Attend treatment	173	45.1	66.1	88.5	.001

Notes: Numbers vary due to missing information; ns = nonsignificant

**Offenders' Views of their Supervisors.** Upon completion of the EM program, the offenders were asked a number of questions about their supervising officer. For community correctional staff, supervising offenders involves both monitoring offenders to ensure compliance with the conditions of temporary absence or probation and assisting the offender in adopting a more prosocial lifestyle. This latter function requires some element of respect and willingness from the offender to follow the guidance of the supervising agent. Supervisors who are seen as more empathic and understanding may be expected to have a more positive influence on their clients.

Table 8 shows the results from the questions asked to the offenders about their supervisors. In general, the results show that the supervisors in B.C. were seen as the least helpful and least open to discussing personal issues. We interpret this finding within the context of the roles of the supervising officers. In B.C., most of the supervisors were selected from the ranks of institutional staff who were less likely to have played a

helping role and more likely to have experiences involving confrontation and enforcement when interacting with offenders. Supervision in the other two provinces was by probation officers who, perhaps as a result of experience and training, relied more on interpersonal skills to influence offenders than did the officers in B.C.

**Table 8. The Offenders' Views of their Supervising Officers (% Agree)**

Question	BC	SK	NF	NF*	p
Can talk about personal problems	42.9	82.8	79.3	85.7	.001
Interested in helping me	73.5	95.3	89.7	100.0	.001
Gave me real help	46.4	90.6	75.0	96.4	.001
Directed my life	28.6	56.3	51.7	48.3	.001
Met me because he had to	46.9	78.1	62.1	75.0	.001
Would have changed officer	10.1	10.9	31.0	10.3	.01
Understood my problems	59.2	90.5	72.4	93.1	.001
Easy to talk to	80.8	92.1	79.3	93.1	ns

\* Views of counsellors in Newfoundland by EM offenders. Sample size varies from 189 to 192. Statistical significance testing conducted only for correctional staff evaluations.

Compared to the offenders in B.C., those in Saskatchewan and Newfoundland were more likely to report that their supervisors were easy to approach regarding personal problems, gave them direction, and “gave me real help”. Although officers from all three provinces were regarded as “easy to talk to”, it is clear that speaking about personal problems was most relevant in the provinces where probation officers conducted

the supervision. An unusual finding was that 31% of the EM offenders in Newfoundland would have changed officers if they could. Unfortunately, we did not ask the offenders why they wanted to change officers.

The EM offenders in Newfoundland also had significant contact with treatment personnel. The offenders were asked similar questions about their counsellors and they gave highly favourable evaluations (see Table 8). More detailed analysis of the EM offenders in the Newfoundland treatment program is presented shortly.

***Staff Views of EM.*** Just as the offenders' views of a program are important, so are the views of the staff. Table 9 shows some of the results from the staff questionnaires. The staff from B.C., compared to those from the other provinces, saw EM as less fair. Although the B.C. staff was just as likely to say that the program benefited the particular offender that they were supervising, when asked about the value of EM for most offenders, they gave the least favourable evaluation.

**Table 9. Staff Views of the EM Program (% Agree)**

Question	n	BC	SK	NF	p
<u>For the Offender:</u>					
EM is a fair program: Yes	234	73.7	82.3	94.6	.01
No opinion		15.2	6.3	1.8	
No		11.1	11.4	3.6	
EM benefited the offender: Yes	232	83.0	82.7	82.4	ns
No		17.0	17.3	17.6	
<u>In general:</u> *	(n)	(10)	(3)	(14)	
EM is useful for offenders		70.0	100.0	78.6	
Could be implemented with other offenders		50.0	66.7	85.7	

\* Staff sample size for general questions were too low for statistical testing (n = 27).  
ns = nonsignificant

*Perceptions of EM as Crime Control.* Both the EM participants and the supervising staff was asked whether they thought the program had any crime control function. Views were elicited on the perceived impact for the participating individual offender and for offenders in general. The results are displayed in Table 10. The B.C. offenders were the least likely to perceive EM as having a crime control function for themselves either while in the program or after completion. When asked whether the program would control crime for most offenders while in the program, there were no differences among the participants from the three provinces. However, the B.C. participants were the most sceptical about the impact of EM for most offenders after

completion of the program. Only 31.9% of the B.C. offenders agreed with the statement that EM would prevent most offenders from committing crimes after program completion. In Saskatchewan, 58.3% of offenders and 65.4% of the offenders from Newfoundland thought that EM would prevent future crime for most offenders ( $\chi^2 = 19.82$ ,  $df = 2$ ,  $p < .001$ ).

Not only did the B.C. offenders express the most pessimistic assessment of the crime control potential of the EM program, so too did the supervising staff (see right side of Table 10). The staff from B.C. felt that only 27.3% of their clients were prevented from criminal behaviour while in the program. Staff from the other two provinces felt that the EM program prevented crime for approximately half of their clients. Further, when asked about the impact of the program after completion, the staff from Saskatchewan gave the most optimistic rating of 38.3% of their clients unlikely to commit further crimes. In B.C. and Newfoundland, staff had no opinion in half of their cases. Twenty-seven supervising staff answered questions about the benefits and deterrent value of EM for most offenders (not just the specific offender that they were supervising). At this general level, 77.8% of the staff from the three provinces felt that EM was useful for offenders but only 37.0% felt that EM is an effective deterrent of future crime for most offenders.

**Table 10. Views of EM as a Potential Crime Prevention Program (%)**

Question	Offender Views				Staff Views			
	A	N/O	D	p	A	N/O	D	p
<u>No crime on EM:</u>	(n = 189)			*	(n = 231)			***
British Columbia	66.3	20.0	13.7		27.3	41.4	31.3	
Saskatchewan	80.0	12.3	7.7		48.1	16.0	35.8	
Newfoundland	93.1	3.4	3.4		56.9	25.5	17.6	
<u>No crime after EM:</u>	(n = 191)			***	(n = 237)			***
British Columbia	59.8	27.8	12.4		8.0	52.0	40.0	
Saskatchewan	87.7	7.7	4.6		38.3	19.8	42.0	
Newfoundland	86.2	13.8	0.0		14.3	55.4	30.4	
<u>For most no crime on EM:</u>	(n = 180)			ns				
British Columbia	64.9	10.6	24.5					
Saskatchewan	73.3	15.0	11.7					
Newfoundland	84.6	3.8	11.5					
<u>For most no crime after E M:</u>	(n = 180)			***				
British Columbia	31.9	30.9	37.2					
Saskatchewan	58.3	30.0	11.7					
Newfoundland	65.4	19.2	15.4					

Notes: \* p < .05, \*\*\* p < .001, ns = nonsignificant  
A = Agree; N/O = No opinion, D = Disagree

***Views of the LRP (Treatment).*** The LRP in Newfoundland is a structured and intensive treatment program provided to the EM offenders. There are a number of different components to the program consisting of a foundation group (a pretreatment, mandatory course), a substance abuse module, anger management training, and a cognitive skills course. In addition, individual counselling was given to almost all of the offenders (92.6%). Approximately one-half of the offenders (55.6%) participated in the anger management group and 75.9% attended the substance abuse program.

The EM offenders attending the LRP were generally approving of the program and their therapists. Over eighty per cent (82.8%) said that the program was suited to their needs and no one said that it was “a waste of time”. The offenders (96.4%) felt that the counsellors gave them “real help” and only five offenders (17.2%) said that they would change their counsellor if they had the opportunity. Finally, 86.2% agreed with the statement that the LRP would prevent them from committing crimes in the future.

The treatment staff from the LRP generally agreed that the program was a benefit to the offender. 88% of the offenders were thought to have benefited from the program. More specifically, 74.5% of the clients were judged to have profited from the alcohol counselling and 68.1% from individual counselling. However, when the counsellors were asked if the program helped to reduce recidivism, there was mixed opinion. For nearly one-third of the clients (30.8%), staff had no opinion as to whether the LRP prevented crime while in the program. This rate jumps to 64.7% of the cases when asked if the program prevents crime in the future for individual clients. This uncertainty mirrored the answers to the questions about EM’s general impact on recidivism. No opinion was given for 30.2% of cases regarding the control of crime while in the program and 71.7% for

future recidivism. Yet, staff felt that the LRP coupled with EM would benefit 96.2% of the cases.



## CHAPTER IV. PROGRAM EFFECTIVENESS

In correctional program evaluations, two measures of success have prominence: 1) controlling criminal behaviour while in the program, and 2) controlling criminal behaviour after completing the program. Programs that perform poorly in controlling in-program and post-program recidivism fail to meet the public's expectation of ensuring community safety. In this report we examined the role of EM programs in meeting the goals of public safety.

### *What Factors Relate to Program Success?*

Successful completion of EM was defined as completing the program without a new criminal offence or a breach of conditions serious enough to warrant program termination. In light of the variability in program operation and delivery (e.g., court vs corrections based, type of supervisory staff), it was a bit surprising to find no significant differences in program completion rates among the three provinces. In Newfoundland, 87.5% of the offenders completed the EM program without incident, in B.C. the completion rate was 89.3%, and in Saskatchewan, 86.3% of the offenders successfully completed the program.

We undertook a more detailed search for variables, beyond provincial program, that could be associated with program success/failure. Over 40 variables were tested with respect to an association with EM program outcome. These variables were taken from files, the SRQ and the exit questionnaires completed by offenders and staff. The significant predictors of EM failure are displayed in Table 11.

**Table 11. Predictors of Failure on EM**

Variable	n	r	p
# prior convictions	231	.19	.01
Arrested as a juvenile	255	.14	.05
Unemployed	257	.22	.001
Drug problem	256	.15	.05
Lives in a group residence	159	.28	.001
Offender views EM as a fair program	190	-.19	.01
LSI-R Risk- Needs Score	256	.22	.001
Manitoba Risk-Needs Score	258	.24	.001

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Relatively few variables predicted failure in the EM program. Two of the predictors were criminal history variables and another two were composite measures of offender risk-needs (the LSI-R and the Manitoba Risk-Needs scales). Being unemployed and having a current drug abuse problem (but not alcohol abuse) were also associated with program failure. Although living in a group residence showed the highest relationship with failure on EM, this relationship was accounted for by offender risk level. Higher risk offenders were more likely to live in a group residence and when this fact was taken into account, living location per se was unrelated to program outcome.

In the previous section on program processes we reported on the offender and staff views of EM. We found a number of differences in the offenders' responses according to province. Participants from provinces where supervision was provided by

probation staff, in general, had more favourable views of the staff and the program. An analysis of these responses, for the most part, were unrelated to program outcome. The only question that was related to outcome was one that tapped the perceived fairness of EM. Offenders who viewed the program as unfair were more likely to not complete the program. Caution is advised in assigning too much relevance to this observation. These questions were administered at the end of the program after the outcome was known. Program failures would have been more likely to give a negative evaluation of EM.

The variables that did not reach statistical significance were instructive. Race (Aboriginal), marital status (single) and relying on welfare were unrelated to program success/failure. Committing a violent offence also did not predict failure on EM. In Saskatchewan, eight EM offenders were convicted of sexual offences and all successfully completed the program. However, once again, offender risk-needs scores were important when explaining this result. The sex offenders were relatively low risk and low needs (average score of 15.4 on the LSI-R and 7.0 on the Manitoba instrument).

From the 234 participants for whom we had sufficient information, 163 (69.7%) received some form of treatment. Treatment, for our purposes, was broadly defined, ranging from the LRP in Newfoundland to Alcoholics Anonymous. The program success rate for offenders receiving treatment was actually lower (68.1%) than it was for those without any documented form of treatment (81.5%). The difference however, was statistically nonsignificant ( $\chi^2 = 2.02$ ). Although the offenders receiving treatment were higher risk offenders (e.g., 22.9 vs. 17.4 on the LSI-R,  $df = 230$ ,  $p < .001$ ), introducing

statistical controls for risk still showed no relationship between general treatment and program outcome (partial  $r = -.04$ ).

In summary, offender risk-needs factors showed the most consistent relationship to program outcome. Whether the program was court driven or corrections based and whether supervision was provided by probation or correctional staff was unrelated to program success/failure. When it came to predicting program outcome, knowledge of the offender's measured level of risk-needs was the most important factor. The next important question is whether EM impacts on future recidivism?

### ***Recidivism***

Offender recidivism was defined as a new conviction within one year of program completion. This information was taken from R.C.M.P. Criminal History records and provincial databases. The recidivism rates one year after completion of the EM program were similar across provinces. Although Saskatchewan demonstrated the lowest rate, 17.3%, it was statistically no different from the rate in B.C. (30.4%) and Newfoundland (32.1%). A summary of the predictors of recidivism is shown in Table 12.

**Table 12. Predictors of Recidivism for the EM Offenders**

<b>Variable</b>	<b><i>r</i></b>	<b><i>p</i></b>	<b><i>n</i></b>
<u>Risk-Need Factors:</u>			
Age	-.16	.01	261
# present offences	.20	.001	258
Arrested as a juvenile	.17	.01	259
Unemployed	.13	.05	261
Drug problem	.25	.001	260
LSI-R Total Score	.25	.001	260
Manitoba Risk-Needs Total Score	.26	.001	262
<u>Personal-Situational:</u>			
Reliance on welfare	.23	.01	179
Lives in group residence	.36	.001	159
<u>Program Activity and Perceptions:</u>			
# Visits to check equipment	.14	.05	232
Can discuss personal problems with officer	-.19	.01	191
Officer gave me real help	-.15	.05	189
Officer's view: EM beneficial for offender	-.18	.01	232
Officer's view: While on EM, crime prevented	.15	.05	231
Officer's view: Offender was successful in the program	-.22	.001	237

Note: Sample size varies due to missing information.

Three general sets of variables predicted post-program recidivism: 1) offender risk-needs, 2) personal-situational, and 3) EM program activities and perceptions. Variables such as age, unemployment and drug abuse are well-established predictors of recidivism (Gendreau, Little, & Goggin, 1996). These variables are reflected in the composite measures of offender risk-needs and both the LSI-R and the Manitoba Risk-Needs instruments showed significant correlations with recidivism ( $r = .25$  and  $r = .26$  respectively). As we found with the prediction of program failure, having committed a violent offence did not predict recidivism. Moreover, none of the eight sex offenders recidivated within the one year follow-up.

Reliance on welfare and living in a group residence predicted recidivism with group residence yielding the highest correlation ( $r = .36$ ). However, the offenders who lived in halfway houses and other residential facilities were also higher risk offenders. After controlling for offender risk-needs, the association between living in a group residence and recidivism remained statistically significant ( $r = .29$ ,  $p < .001$ ).

Two variables directly associated with electronic monitoring predicted recidivism: the number of visits to check equipment and the length of time on the program. The recidivists had more visits for equipment checks than the nonrecidivists (7.3 vs 5.3) and also shorter stays on the program (63.5 days vs 81.0 days). However, once risk-needs levels were factored into the equations, the relationships disappeared. That is, higher risk clients were likely checked more frequently. Furthermore, because higher risk offenders were probably placed into EM later in their sentences and failed at higher rates than low risk offenders, they consequently spent less time in the program.

The offenders who said that their supervising officers were easy to talk to about personal problems and gave them “real help” were less likely to recidivate. Research on behavioural influence has identified the importance of a positive interpersonal relationship and some level of comfort with the counsellor or therapist (Andrews & Kiessling, 1980). The present findings support the importance of correctional staff establishing a relationship with their clientele that is conducive to behavioural change. Similarly, when staff felt that the program was beneficial to the offender and helped offenders to avoid crime, the post-program outcome appeared more favourable.

Offender treatment, broadly defined, was not related to recidivism. Approximately two-thirds (69.7%) of the EM offenders participated in some form of treatment. However, there were no statistically significant differences in the recidivism rates between those who received treatment (25.2%) and those who did not (25.4%). As discussed previously, treatment at this general level included a wide range of programs (substance abuse, life skills, sex offender treatment, etc.) using different formats (e.g., self-help groups, cognitive-behavioural interventions). Therefore, the amorphous nature of these treatment programs may account for the lack of differences in recidivism. A more detailed analysis of the impact of treatment is reserved for the examination of the LRP in Newfoundland.

In summary, when we compared the EM programs from the three jurisdictions we found no statistically reliable differences in recidivism. Almost all the factors that predicted recidivism could be reduced to offender risk-needs level. In other words, it did not matter whether an offender was from the EM program in B.C., Saskatchewan or Newfoundland. Knowledge of their risk-needs level was sufficient to explain future

recidivism. If the impact of variations in EM programs is almost negligible, does EM add anything to the more traditional sanctions of imprisonment and probation? The next section deals with this question.

### ***The Effectiveness of Sanctions: EM vs Probation vs Prison***

In most evaluations of the impact of EM on recidivism, comparisons are made to inmates without any controls for possible differences in offender risk-needs level. In the present study, we too used an inmate comparison group but with controls for the possible influence of offender risk-needs level. Also available for comparison was a small sample of probationers who were not subjected to EM. Consequently, we were in a position to answer the following questions:

- 1) Are the recidivism rates of EM offenders different from the rates for *released inmates*?
- 2) Are the recidivism rates of EM offenders different from the rates of *probationers*?

There were 262 offenders who participated in the EM programs from the three provinces. The inmates from the provinces formed the prison comparison sample (n = 240) and the Saskatchewan and Newfoundland probationers formed the probation comparison (n = 30). There were no statistical differences in risk-needs scores for the inmates and probationers from the various provinces. The recidivism rates for the three groups were 26.7% for the EM participants, 33.3% for the probationers, and 37.9% for the inmates (see Table 13).

**Table 13. Recidivism and Mean Risk-Needs Scores Across Provinces and Samples**

	EM			Prison			Probation	
	BC	SK	NF	BC	SK	NF	SK	NF
LSI-R	20.2	20.3	24.8	25.6	24.8	22.6	25.2	25.4
Total		21.2			24.1		25.3	
Manitoba Risk	9.8	9.4	10.7	12.2	10.9	10.6	11.8	9.8
Total		9.9			11.1		10.6	
Recidivism (%)	30.4	17.3	32.1	54.7	29.2	31.0	30.8	35.3
Total		26.7			37.9		33.3	

The recidivism rates appeared to favour the offenders who were in the EM program ( $\chi^2 = 7.22$ ,  $df = 2$ ,  $p < .05$ ). They had the lowest recidivism rate (26.7%). However, the EM offenders also had statistically lower LSI-R scores (21.2) than either the probationers (25.3) or the prisoners (24.1;  $F(2, 527) = 9.25$ ,  $p < .001$ ). Scores on the Manitoba Risk-Needs scale were 9.9 for the EM offenders, 10.6 for the probationers and 11.1 for the prisoners ( $F(2, 531) = 8.58$ ,  $p < .001$ ). That is, the lower recidivism rates found with the EM participants could be explained by the differences in risk-needs levels among the groups. Further analyses confirmed this hypothesis. When risk-needs scores were introduced as a statistical control, differences in recidivism could not be attributed to the type of sanction (i.e., EM, probation, or prison).

These findings have important implications for sentencing and correctional methods of controlling criminal behaviour. First, if one of the goals of sentencing and corrections is reduced offender recidivism, EM has no added effect when compared to the other two correctional options. Advocates of EM programming have argued that even if recidivism is not reduced, it is certainly not increased. Therefore, EM offers a more inexpensive alternative to imprisonment. To support their conclusion, evidence is presented from evaluations using prison comparison groups that show the EM offenders with lower recidivism rates than released inmates. Unfortunately, no information on offender risk is given in these evaluations and we suspect that the prisoners are higher risk offenders to begin with. Even if these studies controlled for offender risk, as in this study, the argument for using EM remains plausible. However, the important question about the impact of EM on recidivism is: “compared to what?”

When the recidivism rates of the EM offenders were compared to the probationers, we found no statistically significant differences. The recidivism rates for the EM offenders were 26.7% and it was 33.3% for the probationers. Introducing risk-needs into the analysis did not alter the general results. The adjusted rates were 27% and 31% ( $\chi^2 = .59$ ). Although the sample size of the probationers was small, when the recidivism results from the prison comparison and risk-needs factors are considered, we are left to conclude that adding electronic monitoring to the supervision of offenders has little effect on recidivism.

### ***The Newfoundland Treatment Program***

If variations in sanctions show no relationship to offender recidivism, then what impacts on recidivism? The general offender rehabilitation literature suggests that appropriate offender treatment programs can make a difference. Almost all the EM offenders in Newfoundland were required to attend the Learning Resources Program (LRP). This is a relatively intensive treatment program consisting of two and a half hours per day, four days per week. An independent review of the program suggested that the LRP appeared appropriate for offenders and “reductions in recidivism in the range of 15-25% are expected” (Gendreau, 1996, p. 8).

An analysis of the risk-needs scores for the three groups of offenders in Newfoundland found no statistically significant differences on either the LSI-R, the Manitoba Risk-Needs scale or Newfoundland’s Risk-Needs classification instrument (a variation on the Wisconsin instrument). Therefore, the probationers were combined with the EM offenders to form a treatment group consisting of 71 offenders (the two EM offenders who were employed and unable to attend the LRP were removed from analysis). This treatment group was compared to the prison inmates (n = 100) who did not participate in the LRP. We found no pre-existing differences between the two groups. The treated and the untreated groups were similar in age, grade level, number of present offences, prior convictions and their length of sentences. They were also similar in their employment, marital status and degree of substance abuse.

Preliminary analyses gave the appearance that treatment had no effect. The recidivism rates for the treated and untreated (prison) groups were nearly identical

(32.4% vs. 31.0%;  $\chi^2 = .04$ ). We had expected that the treated offenders would have shown lower recidivism rates than the untreated prison sample. However, one of the characteristics of effective offender rehabilitation programs is that intensive services directed to *higher* risk offenders would be more effective. Intensive treatment services matched to low risk offenders typically show either no effect on recidivism or, in some cases, a slight increase in recidivism (Andrews & Bonta, 1998; Andrews, Zinger, et al., 1990). Consequently, it was important to evaluate the program with respect to the risk levels of the offenders.

Although, the program in Newfoundland accepted many higher risk-needs offenders, there were also lower risk-needs offenders in the program. For example, on the LSI-R, scores ranged from 13 to 43 for the offenders in the LRP. Taking the median point on the LSI-R (score of 23) we constructed a low risk (n = 86) and high risk (n = 83) group of offenders for both the LRP offenders (71) and the prison comparison group (100). The recidivism rates for the four groups are shown in Table 14. Nearly identical results were found when we used the Manitoba Risk-Needs instrument with a median split at 10 (results for the Newfoundland scale are not presented because scale information was missing on 39 offenders).

**Table 14. Per Cent Recidivism as a Function of Risk Level and Treatment (n)**

Risk Level (LSI-R)	Treatment	
	Yes (LRP)	No (Prison)
Low	32.3 (10)	14.5 (8)
High	31.6 (12)	51.1 (23)

Note: n = number of recidivists.

A statistically significant interaction was found between treatment and risk level ( $F(1,165) = 6.99, p < .01$ ). As can be seen in Table 14, 12 of the 38 (31.6%) high risk offenders exposed to treatment recidivated compared to 23 of the 45 (51.1%) high risk offenders who did not receive treatment. On the other hand, the low risk offenders who received treatment showed *increased* recidivism compared to the prison/no treatment group (32.3% vs. 14.5%). This finding also explains why no differences in recidivism were found when we simply compared the treated offenders with the non-treated inmates. The effectiveness of the program for higher risk offenders was masked by the fact that the lower risk offenders showed increased recidivism.

The present results confirm the findings from the general literature on offender rehabilitation. Structured, cognitive-behavioural interventions can “work”. Also consistent with the research literature was the result that treatment is more effective when it is matched to higher risk offenders even under conditions of intensive supervision (Gendreau et al., 1994). From a program development perspective, there is a need to

improve the screening of offenders to the LRP program. Placing low risk offenders into the treatment program had unintended consequences. Not only were treatment resources wasted on these offenders but it also led to increased criminal activity. Without direct evidence, we can only hypothesise that the daily associations of low risk offenders with higher risk offenders in the treatment program altered the reinforcement contingencies for criminal thinking and behaviour.

## **CHAPTER V. GENERAL SUMMARY AND CONCLUSIONS**

Much of the attraction to EM is the possibility of providing a cost-effective alternative to incarceration without increasing the risk to public safety. However, the evaluations reported in the literature are difficult to interpret due to serious methodological weaknesses. Although the present study has its own shortcomings, it does improve upon earlier evaluations. Most notably, both prison and probation comparison groups were used and the comparisons controlled for the influence of offender risk and needs.

The three provincial programs differed in terms of who participated in the EM program and how it was administered. The EM offenders from B.C. appeared to be the least serious type of offender and we found differences in the views of staff and offenders regarding the programs. In general, EM programs where supervision came from probation officers received more favourable ratings from the offenders than the program where supervision was by officers coming from institutional settings. Despite the fact that the general type of supervision given to EM offenders was related to “consumer satisfaction”, the overall program completion rate did not differ across sites. That is, liking one’s supervising officer and the program did not translate into successful program completion.

Analyses of offender characteristics and program features found that program success was best explained by offender risk-needs level. Knowledge of the offender’s risk-needs score was sufficient to predict whether they would successfully complete the program. It did not seem to matter whether the EM program was court-based or

corrections-based. The high success rates reported by EM programs in this study, and in the literature, may reflect little more than the likelihood that the programs are dealing with relatively low risk offenders.

The recidivism analysis showed that EM does not have a post-program impact on criminal behaviour. One of the most telling findings was that the recidivism rate for the EM offenders was not different from the rate for probationers after controlling for offender risk-needs scores. This lack of difference questions the cost savings value of EM compared to the community-based supervision offered by probation.

Consistent with the general offender literature, treatment was associated with reduced recidivism. In particular, it was intensive treatment that was directed to higher risk offenders that showed a positive effect. Herein lies a potential advantage to using EM as a correctional option. Higher risk offenders who would have normally served custodial sentences were supervised in the community and demonstrated lower recidivism rates following treatment than similar risk offenders released into the community without treatment. In addition, the offenders who participated in the LRP and who were under EM supervision were more likely to complete the program than the probationers who attended the LRP. It appears that EM may not only facilitate tolerance around releasing higher risk inmates into the community, but it may minimise treatment drop-out. This said however, there may be other less intrusive and costly interventions than EM that can improve treatment participation.

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