

Research Report

**Outcomes of Federal Aboriginal
Offenders in Correctional
Programs: Follow-up from the
ICPM Evaluation**

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**Outcomes of Federal Aboriginal Offenders in Correctional Programs:
Follow-up from the ICPM Evaluation**

Lynn A. Stewart

&

Geoff Wilton

Correctional Service of Canada

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Executive Summary

Key words: *Aboriginal offenders, correctional programs, correctional program outcomes*

The Correctional Service of Canada (CSC) piloted a new model of correctional programming in the Pacific region in January 2010 and in the Atlantic region in July 2011. The Integrated Correctional Program Model (ICPM) is designed to address all the identified criminogenic needs of offenders who meet the criteria for a correctional program in a single, multi-target, moderate or high intensity intervention. The entire intervention includes primers, the multi-target program and institutional and community maintenance.

A comprehensive examination of the ICPM was completed by Orbis Partners under contract to CSC (Jones & Robinson, 2013) in 2013. The current report was completed in follow-up to the previous examination and presents the results of analyses on the impact of correctional programs on Aboriginal participants in general, and the impact of culturally-specific programs in particular. The analyses were conducted to answer several questions posed by the Executive Committee (EXCOM) members as a follow-up to the Jones and Robinson (2013) report that had shown inconclusive preliminary results for the Aboriginal ICPM when compared to the Nationally Recognised Correctional Programs (NRCP).

Question # 1: What do we know about the effectiveness of correctional programs for Aboriginal offenders in CSC? The review of all studies reporting on outcomes for Aboriginal offenders in correctional programs offered within CSC found overall encouraging results. Of note, a meta-analysis of all evaluations demonstrated that Aboriginal offenders reduced their risk of readmission to custody through participation in correctional programs, whether culturally-specific programs or mainstream programs.

Question # 2: What were the outcomes for Aboriginal offenders who attend the mainstream ICPM relative to the Aboriginal stream of the ICPM? The results, accessing the same dataset as was used by Jones and Robinson (2013), indicated that there is a non-significant trend for Aboriginal offenders who participated in the Aboriginal-stream of ICPM (AICPM) to have higher overall rates of institutional charges than Aboriginal offenders who participated in the mainstream ICPM, but this may be related to their overall higher risk ratings. There were no significant differences in the rates of returns to custody for offenders participating in the two program options.

Question # 3: In a longer follow-up, using similar methodology to that of the Jones and Robinson (2013) report on ICPM, are the trends for the poorer results for the AICPM relative to the NRCP group maintained? Using the same data set as the Jones and Robinson (2013) report, the analyses indicated that controlling for time of follow-up, Aboriginal participants in the AICPM/ICPM and NRCP options have similar frequencies and rates of admissions to voluntary, involuntary and disciplinary segregation. The percentage of offenders who received a discretionary release differed between the two groups with the AICPM/ICPM group more likely to be released on day or full parole. The proportions of sentence served prior to release, however, were similar. Overall returns to custody, returns with an offence, and returns with a violent offence did not differ between the two groups when covariates were controlled.

Question # 4: Using an alternative methodology that compares Aboriginal offenders who participated in AICPM to Aboriginal offenders who participated in an Aboriginal-specific NRCP, what are the respective correctional outcomes? Aboriginal offenders who participated in AICPM and Aboriginal offenders who participated in an Aboriginal-specific NRCP were compared on a number of correctional outcomes, controlling for time at risk. This procedure did not use the one-to-one matching procedure of the Jones and Robinson (2013) research, but rather statistically controlled for variables known to be associated with risk, thereby allowing a larger sample size. Results indicated that Aboriginal participants in the AICPM and NRCP did not differ on rates of institutional charges or on transfers to any type of segregation. As in the previous analysis, these results also confirmed that the percentage of offenders who received a discretionary release differed between the two groups with the AICPM group more likely to be released on day or full parole. The proportion of sentence served prior to release was also significantly smaller among AICPM participants than Aboriginal NRCP participants, although the difference was slight. When covariates and time at risk are controlled, overall results examining returns to custody and returns with an offence favoured the AICPM group. Again, unlike the early results in the contracted ICPM report, the current trends suggest that Aboriginal offenders who participated in the AICPM stream do as well or better than Aboriginal offenders participating in the NRCP group.

Question # 5: What is the comparative efficiency of the AICPM and the NRCP menu in assisting offenders in starting and completing programs on their correctional plans? Examining the same group of offenders included in the analysis for Question 4, results indicate that there are no significant overall differences in relative efficiency in time to completion of the required programs between the AICPM and the Aboriginal-specific NRCP. Offenders in the NRCP group, however, appear to be enrolled in, and complete, the first main program significantly more efficiently than offenders in the AICPM group.

In conclusion, the overview described in Question 1 pointed to evidence that Aboriginal offenders benefit from participation in both culturally-specific and mainstream CSC correctional programs. Further analyses in response to Questions 3 and 4 indicated that when risk factors are controlled, Aboriginal offenders participating in the AICPM program do as well as, or better than, those who have participated in the Aboriginal programs in the NRCP menu. They also appeared to do as well as those who participated in the mainstream ICPM option, although this result should be interpreted with caution due to small numbers and a short follow-up period. On the other hand, this new model does not appear to realise one of the ICPM's main objectives, to improve the efficiency and timeliness of program delivery. At this point in the implementation of the AICPM, does not realise any efficiencies relative to the NRCP model in assisting offenders in the timely completion of programs included in their correctional plans.

It should be noted, however, that these results only compare outcomes across these two program menus and do not allow any conclusions regarding the overall effectiveness of the AICPM relative to a non-treatment comparison group. It should also be noted that the results for these additional analyses involving ICPM/AICPM are restricted to offenders who had shorter sentences, and were therefore available for examination of their release outcomes. Community outcomes of offenders serving longer sentences, usually for more serious crimes, are not yet

available. Still to be examined is the AICPM's impact on specific subpopulations such as sex offenders, violent and domestic violence perpetrators, as well as the impact of the program post-WED that would include recidivism that results in a provincially administered sentence.

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Introduction

The Correctional Service of Canada (CSC) piloted a new model of correctional programming in the Pacific region beginning in January 2010 and in the Atlantic region beginning in July 2011. The Integrated Correctional Program Model (ICPM) is designed to address all the identified criminogenic needs of male offenders who meet the criteria for a correctional program in a single, multi-target, moderate or high intensity intervention. The entire intervention includes primers, motivational modules to address responsivity issues, the multi-target program, institutional and community maintenance, as well as the community program for offenders released to the community who had not participated in a program while incarcerated.

A comprehensive examination of ICPM was completed by Orbis Partners under contract to CSC (Jones & Robinson, 2013). This contracted research utilized a robust methodology of a case-control matching procedure. Nine-hundred and forty ICPM participants were compared to a sample of matched-pairs of participants in Nationally Recognized Correctional Programs (NRCP). The final sample was 1,880. Although the results were not statistically significant on most measures of outcome, the researchers reported some encouraging evidence favouring the ICPM stream relative to the NRCP menu. Preliminary results for the Aboriginal-stream ICPM (referred to as AICPM), however, were not as promising, with non-significant trends favouring the NRCP group. These results may have been due to small sample sizes and a short follow-up period. The analyses of returns to custody and reoffending for Aboriginal offenders were based on only 89 ICPM/AICPM participants and their matched-pairs. The estimates of rates of returns to custody and returns with an offence were, consequently, imprecise and lacking reliability. It was, therefore, requested by members of CSC's Executive Committee (EXCOM) that the Aboriginal component of the ICPM be examined more closely before decisions on full national implementation be made.

The current brief report presents the research results of five questions that were posed by EXCOM members following review of the Jones and Robinson (2013) report.¹ The findings are organized by research question, with each question encompassing a section on method, results, and a conclusion. The questions are as follows:

¹ Answers to the first three questions were previously submitted to the Commissioner of CSC in the form of briefing notes. The results of these analyses, providing more detail on the methodology, are included in this report.

1. What do we know about the effectiveness of correctional programs for Aboriginal offenders in CSC?
2. What were the outcomes for Aboriginal offenders who participated in the mainstream ICPM relative to the Aboriginal stream of the ICPM?
3. In a longer follow-up, using similar methodology to that of the Jones and Robinson (2013) research on ICPM, are the trends for the poorer results for the AICPM relative to the NRCP group maintained?
4. Using an alternative methodology that compares Aboriginal offenders who participated in AICPM to Aboriginal offenders who participated in Aboriginal-specific NRCPs, what are the comparative outcomes?
5. What is the comparative efficiency of the AICPM and the NRCP menu in assisting offenders in starting and completing programs required in their correctional plans?

Question # 1: What do we know about the effectiveness of correctional programs for Aboriginal offenders in CSC?

Method

This segment of the report summarizes studies on outcomes of Aboriginal offenders who have participated in the mainstream or culturally-specific programs offered at CSC. The information is supplemented by a review of available information on the effectiveness of correctional programs in other jurisdictions with significant indigenous offender populations (i.e., Australia and New Zealand).

Background

Approximately 23% of currently incarcerated federal offenders self-identify as Aboriginal (16.2% First Nations; 5.7% Metis; 1% Inuit). Of these, over 96% are rated as moderate or high risk at intake (Corporate Reporting system, July 22, 2013).

Apart from the recent Jones and Robinson (2013) Partners report that included the analysis of the Aboriginal-specific component, three reports completed in CSC within the last five years have provided large-scale empirical outcomes on correctional program effectiveness for Aboriginal offenders: The Correctional Program Evaluation Report (CSC, 2009); the Meta-analysis on the Effectiveness of Correctional Programs for Diverse Offenders (Usher & Stewart, 2011); and the Evaluation Report: The Strategic Plan for Aboriginal Corrections (CSC, 2012). In addition, several individual program outcome studies have reported on the impact of the following programs: In Search of Your Warrior (i.e., Aboriginal violent offender program), Aboriginal Offender Substance Abuse Program, and Tupiq (i.e., Inuit sex offender program). Results from these programs are included in the meta-analysis summarized below.

Key Findings

Correctional Programs Evaluation Report (2009)

Results for all programs. Eleven of fifteen programs for male offenders showed reductions in returns to custody for Aboriginal participants compared to Aboriginal offenders who did not participate in the programs. Five of fifteen programs showed reduction in rates of return with an offence and five of fifteen showed reductions in rates of return with a violent re-offence. Thirteen of the programs examined were mainstream programs.

Results for culturally-specific programs. The report included only two Aboriginal-specific programs. Both of these programs showed improved outcomes on rates of return to custody, but neither showed reductions in rates of returns with an offence or rates of return for a violent offence. Overall, results were stronger for Aboriginal offenders participating in mainstream programs. However, this may be related to smaller numbers of offenders participating in Aboriginal programs.

The Effectiveness of Correctional Programs with Diverse Offenders: A Meta-Analytic Study (2010)

Meta-analytic techniques can compensate for low numbers of participants and low base rates of reoffending in studies involving smaller programs. This meta-analysis included an examination of all correctional program studies conducted in CSC that reported on outcomes of Aboriginal offenders, comparing Aboriginal offenders who participated in programs to Aboriginal offenders who did not participate in a given program. The study reported only on returns to custody which included returns with, and without, a new offence.

For Aboriginal male offenders, 7/26 (27%) of the programs reported significant reductions in rates of return to custody; of these, 2/8 (25%) of the comparisons for Aboriginal-specific programs found significant reductions in rates of return to custody compared to 5/18 (28%) of the mainstream programs.

Both mainstream and Aboriginal-specific programs produced an overall significant treatment effect, but this result was stronger for non-Aboriginal offenders attending mainstream programs. Aboriginal participants were 1.45 times less likely to return to custody than non-participants while non-Aboriginal participants were 1.76 times less likely to return to custody than non-participants.

Draft Evaluation Report: The Strategic Plan for Aboriginal Corrections (2013)

This evaluation examined outcomes for Aboriginal offenders extending the follow-up period of the evaluation of correctional programs completed in 2010. Overall, participation in mainstream sex offender and violence prevention programs showed positive community outcomes for Aboriginal men when considering any readmission; however, participation in these programs was not related to significant decreases in readmission for a new, or a new violent, offence.

Studies from Other Constituencies

Australia and New Zealand have similar rates of overrepresentation of indigenous populations (e.g., the Aboriginal Australians and Torres Strait Islanders, the Maori in New Zealand). Very little empirical research has been conducted on the effectiveness of correctional programs delivered to these populations, although large scale systematic evaluations are currently underway. Many of the programs being delivered were based on the Canadian effective corrections model (i.e., risk, need, and responsivity) and have only been implemented in the past few years (Macgregor, 2008).

Conclusion

There are some encouraging results for Aboriginal offenders who participate in correctional programs. One of the reasons we do not see statistical differences in outcomes for program participants and non-participants among Aboriginal offenders may be because of smaller numbers, resulting in low statistical power. The meta-analysis, however, demonstrated that, overall, Aboriginal offenders reduce their risk of readmission to custody through participation in correctional programs, both Aboriginal culturally-specific programs and mainstream programs.

Correctional programs that are designed to address the principles of risk, need, and responsivity have been demonstrated to be effective at reducing recidivism. Past studies have suggested that when these well-designed programs do not produce a treatment effect, issues related to adherence to program integrity may be implicated. Issues specific to program integrity include: attention to the selection and training of appropriate staff, adherence to the program delivery requirements, and formal staff oversight and continuous provision of professional development (Gendreau, Gogin, & Smith, 1999).

Question # 2: What were the outcomes for Aboriginal offenders who attend the mainstream ICPM relative to the Aboriginal stream of the ICPM?

Method

Participants

Ninety-four Aboriginal offenders who had attended correctional programs and had been released were placed into one of two groups. One group consisted of offenders who participated in Aboriginal-specific multi-target sessions of AICPM ($n = 70$). The other group of Aboriginal offenders participated in non-Aboriginal-specific multi-target sessions of ICPM ($n = 24$). Sex offenders were excluded from this analysis because there is no sex offender stream in the AICPM. ICPM programs delivered in the community were excluded because one of the primary objectives was to examine the impact of the programs on institutional adjustment and outcomes early into release, both of which would occur prior to participation in ICPM programs in the community.² A comparison of the profiles of the two groups is found in Appendix A. It is important to note that AICPM offenders were more likely to be First Nations and to be assessed as higher risk. Given these differences (and small numbers making it impossible to statistically control for them), the results should be interpreted with caution. There was no difference between groups in the proportion of offenders who had attended institutional maintenance.

Measures³

The same measures were used across some of the remaining questions and are explained in this section in detail and not repeated for each question. Demographic information, sentence and offence information, transfers to segregation, institutional charges, assessment of levels of risk, need, and reintegration potential, as well as community outcomes on release were drawn from information available in the Offender Management System (OMS), a computerized file system maintained by CSC to manage information on all federally sentenced offenders.

Offenders' ratings of criminal history risk, criminogenic need, and reintegration potential at intake were drawn from results of the Offender Intake Assessment (OIA). Parole officers use

² From an initial 146 Aboriginal offenders who participated in ICPM and had been released, 29 were excluded because they participated in either the sex offender stream of ICPM or the community ICPM. A further 22 offenders were excluded because they did not have either type of multi-target program, and a single offender was excluded because he had both types of multi-target programs.

³ Not all these measures were used for all analyses. For example, the answer to Question 2 did not include an analysis of segregation transfers or comparisons of CASA results. Both, however, are part of the analyses responding to Question 4.

the results of several measures and apply structured professional judgment to provide overall assessment of static risk based on criminal history factors. Offenders' reintegration potential is a measure of their likelihood of successful transition into the community. For male Aboriginal offenders, reintegration potential is calculated using the Custody Rating Scale (CRS), the dynamic factor rating (i.e., criminogenic need), and the static factor rating (i.e., criminal history risk). "High" reintegration potential indicates greater likelihood of successful reintegration (CSC, 2007).

Dynamic Factor Identification and Assessment (DFIA). The DFIA is comprised of seven domains representing criminogenic need areas: employment/education, marital/family relations, associates, substance abuse, community functioning, personal/emotional orientation, and attitude. A number of indicators within each domain are rated by a parole officer as present or not, and then a rating for each domain is assigned as follows: factor seen as an asset to community adjustment, no immediate need for improvement, some need for improvement or considerable need for improvement (Brown & Motiuk, 2005). In 2009, a revised version of the DFIA was implemented with the ratings changing to: asset to community adjustment, no immediate need, low need for improvement, moderate need for improvement, and high need for improvement. The DFIA-R ratings of no immediate need and low need for improvement were collapsed into a single category to match the DFIA rating of no current difficulty, which was an acceptable practice when data spans the transition from the DFIA to DFIA-R.⁴ An overall dynamic factor (i.e., criminogenic need) rating of low, moderate, or high is made based on information from all the domains. For this analysis, moderate to high need ratings were combined to indicate a need in that area.

The Static Factors Assessment (SFA). The SFA is comprised of indicators measuring criminal history and offence severity. Like the DFIA, indicators are rated as present or not, and an overall static factor (i.e., criminal history risk) rating of low, moderate, or high is made. Moderate and high risk ratings were combined to indicate more extensive criminal histories and offence severities which would typically require intervention.

Computerized Assessment of Substance Abuse (CASA). The CASA is part of the intake assessment and evaluates the extent of substance misuse and its relationship to offending. This

⁴ Some of the offenders in this study were administered the DFIA and some the DFIA-R since sample selection was based on time of first program and not time of admission. For example, an offender may have been admitted prior to 2009 and administered the DFIA, but enrolled in his first correctional program after 2010.

assessment procedure includes the results of several well-validated measures of substance misuse. In particular, the Drug Abuse Screening Test (DAST; Skinner, 1982) and the Alcohol Dependency Scale (ADS; Skinner & Horn, 1984) were used to identify offenders who likely meet substance use disorder diagnostic criteria. A rating of moderate, substantial, or severe on either of the scales was used to approximate a diagnosis of a substance use disorder.

Segregation transfers. CSC applies three types of segregation and one measure of population management (CSC, 2007). Administrative segregation is the separation of an offender from the general offender population when specific legal requirements are met and when there is no reasonable alternative. Legally, administrative segregation is permitted when an offender's actions or intended actions jeopardize the security of the institution, his presence in the general population jeopardizes the safety of himself or another person, or his presence in the general population could interfere with an investigation that could lead to a criminal charge or a serious disciplinary offence. Voluntary segregation occurs when an offender requests it and generally his own safety is in jeopardy. Involuntary segregation occurs when the legal requirements are met, but the placement is not voluntary (Commissioner's Directive [CD] 709). Finally, disciplinary segregation is one of several possible sanctions for a serious disciplinary offence.

Institutional charges. Rates of incurring institutional charges (minor, serious, and total) were compared across groups. A rate analysis is necessary to control for time-at-risk, as offenders in the study sample were incarcerated for variable periods of time. Rates can be calculated by taking the number of events across an entire sample and dividing by the total time across the entire sample during which the events may have taken place.

Recidivism. In addition, results for the two groups were compared on measures of recidivism on release (i.e., the proportion of offenders who returned to custody with and without an offence prior to WED) at three fixed follow-up periods: three months, six months, and nine months.

Analyses

Analyses for Question 2 were limited due to the small sample of offenders. Chi-squared tests compared the groups on frequencies of offenders with institutional charges. The small sample size and low frequencies of returns to custody and returns to custody with an offence made inferential chi-squared or survival analysis statistics inappropriate.

Results

Both institutional and post-release outcomes were examined. For institutional outcomes, the variables of interest were the number of serious and minor charges after commencing either the multi-target ICPM or AICPM. With respect to post-release outcomes, returns to custody (including those with a new offence) were examined.

Institutional Outcomes

Table 1 presents the proportion of offenders in each group who had at least one institutional charge following the start of the offenders' first multi-target program. The proportions of offenders with at least one serious charge, at least one minor charge, or at least one of either type of charge after program start are not significantly different between the groups. The apparent trend, although not significant, of more institutional charges among offenders participating in AICPM than the offenders participating in ICPM may be related to the higher risk ratings of Aboriginal offenders in the AICPM option.

Table 1

Frequencies and Proportions of Offenders in Each Study Group with One or More Serious, Minor, and Total Institutional Charges after Program Start Dates (N = 94)

Charge Type	AICPM (n = 70)		ICPM (n = 24)		ϕ	p
	n	%	n	%		
Serious					.08	.41
0	56	80	21	87		
1 or more	14	20	3	13		
Minor					.09	.40
0	46	66	18	75		
1 or more	24	34	6	25		
Either type					.15	.16
0	38	54	17	71		
1 or more	32	46	7	29		

Note. AICPM = Aboriginal-stream ICPM; ICPM = Integrated Correctional Program Model.

Outcomes on Release

Offenders in the AICPM and ICPM groups generally had short sentences and short post-release follow-up times. Additionally, the sample was rather small and, as previously noted, pre-existing differences between the groups were not controlled. For these reasons, the following

results must be interpreted with caution.

The two groups had similar average follow-up periods following release. The AICPM group had a mean of 287 days ($SD = 154$) of follow-up, the ICPM has an average of 284 days ($SD = 184$) of follow-up. The follow-up period was defined as the time between release and the first date of readmission, warrant expiry, death, deportation, or data collection. These means were not statistically significantly different ($t(92) = 0.09$, $p = .93$, *Cohen's d* = .02).

The two groups were compared on the frequencies of returns to custody and returns with an offence while controlling for time at risk. Ideally, returns with violent and sexual offences would also be examined; however, only 2 of the 94 offenders returned with a violent offence and none returned with a sexual offence, making these analyses impossible. Time at risk is defined as the number of days from release to return to custody, warrant expiry, date of data collection, or occasionally death or deportation. Since OMS data only reflect events during the period an offender is under federal jurisdiction, the offender released at warrant expiry was excluded from these analyses. The following analyses are further restricted to only the first return following release.

Table 2 shows the frequencies of returns to custody and returns to custody with an offence that occurred within three, six, and nine months. Since the number of offenders with 12 months of follow-up was only 45, this analysis was excluded. Percentages in Table 2 are restricted to offenders with appropriate follow-up periods. The results suggest that there are no differences in rates of return to custody between the AICPM and ICPM groups, although the low numbers do not make it possible to identify any reliable trends.

Table 2

Frequencies of Returns to Custody within 3, 6, and 9 Months by Study Group

Return Type	AICPM		ICPM	
	%	<i>n</i>	%	<i>n</i>
Any Return within				
3 months (<i>n</i> = 87)	3.1	2	0	0
6 months (<i>n</i> = 83)	13.1	8	13.6	3
9 months (<i>n</i> = 64)	30.6	15	20.0	3
Return with Offence within				
3 months (<i>n</i> = 87)	3.08	2	0	0
6 months (<i>n</i> = 83)	3.28	2	0	0
9 months (<i>n</i> = 64)	8.16	4	0	0

Note. AICPM = Aboriginal-stream ICPM; ICPM = Integrated Correctional Program Model.

Conclusion

There is a trend for Aboriginal offenders who participated in the Aboriginal ICPM stream to have higher overall rates of institutional charges than Aboriginal offenders who participated in the mainstream ICPM. This apparent trend may, however, be related to their overall higher risk ratings.

There are no significant differences in the rates of returns to custody for offenders between the two program options. However, as noted, rates of reoffending are still too low, and the number of offenders too few, to allow detection of a reliable trend. A larger sample with a longer follow-up period allowing statistical control for covariates that differ between the two groups would be required to form conclusions.

Question # 3: In a longer follow-up, using similar methodology to that of Jones and Robinson (2013) of ICPM, are the trends for the poorer results for the AICPM relative to the NRCP group maintained?

Method

Measures and Procedure

One potential remedy identified to address the low sample size and resulting imprecision in the Jones and Robinson (2013) report was to update the data. Using the same sample of 1,880 offenders as a starting point, data were re-extracted from OMS. This served three purposes while maintaining the strength of the matching procedure. First, many offenders who had not been released when data were originally extracted would now be released, providing a larger sample. Second, the number of days following release during which returns to custody may have occurred would be longer for many offenders. Third, the analysis could include offenders with more representative sentence lengths rather than being restricted to those with the shortest sentences.

Outcomes for Aboriginal offenders from the same sample used in the Jones and Robinson (2013) research who attended either the ICPM mainstream or cultural-specific ICPM option were compared to Aboriginal offenders who attended any of the NRCP options. Offenders were matched one-to-one on key characteristics related to risk (see Jones & Robinson, 2013). Institutional charges and admissions to segregation were examined by rate analyses. These rates indicate the number of charges a typical offender in a given group would incur during a year of incarceration. Results including returns to custody and returns with an offence were compared at fixed follow-up periods as well as through a survival analysis. Survival analyses are a method of examining events, in this case returns to custody, in combination with the time for that event to occur. Proportional hazards regression, the type of survival analysis used in this report, also allows inclusion of variables which need to be statistically controlled such as age at release and risk of recidivism.

Participants

In the initial sample of 1,880 offenders included in the Jones and Robinson (2013) report, 390 were Aboriginal, with 195 having attended either the mainstream ICPM or the culturally-specific AICPM and 195 of their matched comparison group having attended a NRCP. Two

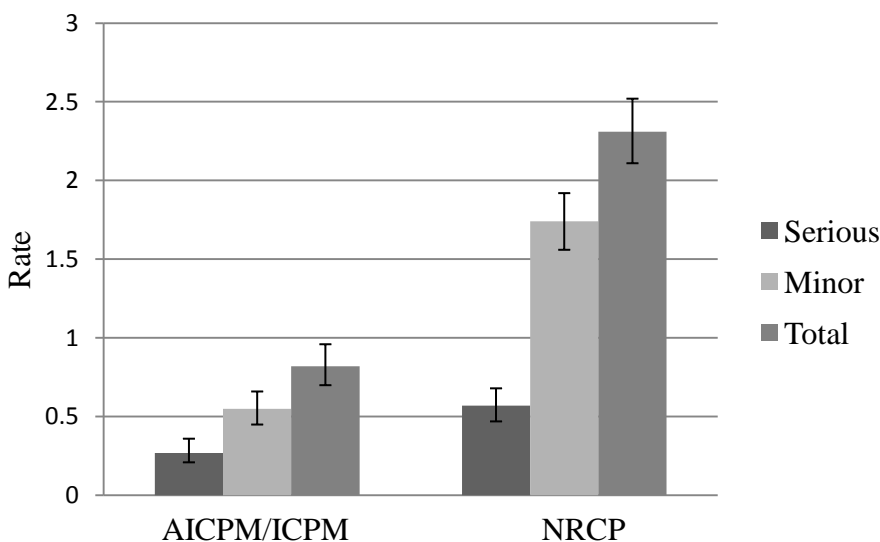
hundred and seventy-four of these Aboriginal offenders (137 from each group) were released, representing an increase of 48 offenders in each group, or 96 offenders in total – a 54% increase in sample size since the completion of the original Jones and Robinson (2013) report.

Results

Figure 1 displays the rates of institutional charges and provides a graphic illustration of the trend. The rates of both serious and minor institutional charges per year incarcerated among the AICPM/ICPM participants were statistically significantly lower than for the NRCP participants. Overall, the AICPM/ICPM participants had significantly fewer charges and were less likely to have multiple charges. This is reflected in their lower rates of charges than the NRCP participants.

These results should be interpreted with caution as there may be a cohort effect. Specifically, the possible application of more informal dispute-resolution practices may have benefited participants incarcerated on more recent sentences. Furthermore, the finding that indicates that there were no differences in transfers to disciplinary segregation between the two groups (see Figure 2) supports the concern that the differences in institutional charges may be confounded by a cohort effect

Figure 1. Offender Person Year Rates and 95% Confidence Intervals of Institutional Charges among released AICPM/ICPM and NRCP Participants

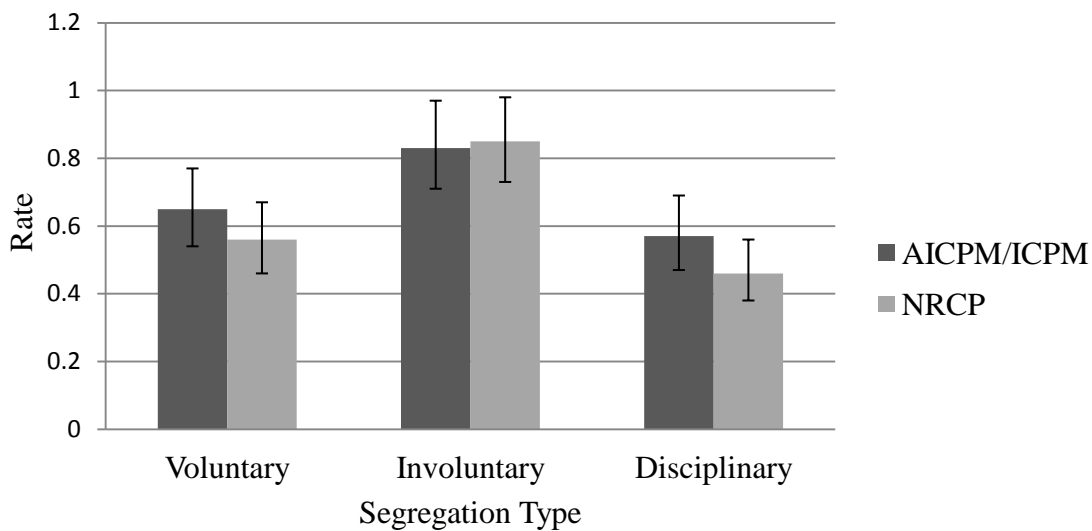


Note. ICPM = Integrated Correctional Program Model; AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program.

Admissions to Administrative Segregation

The following analyses examine the number of admissions to segregation rather than time spent in segregation. Figure 2 shows that the Aboriginal participants in AICPM/ICPM and NRCP have similar frequencies and rates, respectively, of admissions to voluntary, involuntary, and disciplinary segregation.

Figure 2. Rates and 95% Confidence Intervals of Admissions to Segregation among AICPM/ICPM and NRCP Participants



Note. ICPM = Integrated Correctional Program Model and AICPM (Aboriginal-stream ICPM); NRCP = Nationally Recognized Correctional Program.

Release Types and Proportion of Sentence Served Incarcerated

Table 3 shows that the differences between the groups on first release type granted by the Parole Board of Canada were statistically significant ($\chi^2(2, N = 274) = 9.57, p = .008, \phi = .19$). The ICPM/AICPM participants were more likely to be granted day parole than the NRCP group (all parole releases in the ICPM/AICPM group were for day parole). In addition, the proportions of aggregate sentence lengths that were served while incarcerated from initial admission to federal custody to first release were calculated. Despite the results presented above showing that release types differed between the groups, the distributions of proportions of time served among the ICPM/AICPM and NRCP participants were similar (Kruskal-Wallis $\chi^2(1, N = 274) = 2.62, p = .11$).

Table 3

Frequencies of Release Types by AICPM/ICPM and NRCP Participants (N = 274)

Release Type	AICPM/ ICPM		NRCP	
	%	<i>n</i>	%	<i>n</i>
Parole	42.3	58	27.0	37
Statutory Release	56.2	77	67.2	92
Other	1.5	2	5.8	8

Note. Five of the ‘Other’ releases were at warrant expiry and the remaining 3 were releases on long term supervision. ICPM = Integrated Correctional Program Model; AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program.

Outcomes on Release

The frequencies of Aboriginal AICPM/ICPM participants’ returns to custody, returns with an offence, and returns with violent offences while controlling for time at risk were compared to the NRCP participants who were Aboriginal. Ideally, returns with sex offences would also be examined; however, this was not possible since only 1 of the 274 offenders returned with a sex offence. Time at risk is the number of days from release to return to custody, warrant expiry, date of data collection, or occasionally death or deportation. Since OMS data are restricted to the period an offender is under federal jurisdiction, offenders released at warrant expiry are excluded from these analyses. The following analyses are further restricted to only the first return following release.

Table 4 presents the comparative frequencies of the three types of returns to custody that occurred within three, six, nine, and 12 months for the two groups. Of the 137 offenders in each of the groups who were released, 123 of the AICPM/ICPM group and 125 of the NRCP group had three months between release and WED, data collection, death, or deportation, allowing them to be included in the analyses of returns within three months. One hundred and sixteen of the AICPM/ICPM and 123 of the NRCP group had a potential follow-up period of 6 months. Seventy-four of the AICPM/ICPM and 84 of the NRCP group had a potential follow-up period of nine months, and 51 of the AICPM/ICPM and 60 of the NRCP had a potential follow-up of one year. Percentages are restricted to offenders with appropriate follow-up periods.

The results illustrate that for most outcomes, the trends are that Aboriginal NRCP participants were more likely to return to custody than the Aboriginal AICPM/ICPM participants. Results of any return to custody within six months, and returns with an offence within six and nine months significantly favoured AICPM/ICPM. On other comparisons, the participants in the AICPM/ICPM and NRCP groups of Aboriginal offenders were not significantly different.

Table 4

Frequencies of Returns to Custody within 3, 6, 9, And 12 Months by Study Group

Return Type	AICPM/ICPM		NRCP		χ^2	<i>p</i>	ϕ	Odds Ratio
	%	<i>n</i>	%	<i>n</i>				
Any Return								
3 months	3.25	4	6.40	8	1.33	.248	.07	0.49
6 months	13.79	16	25.20	31	4.92	.027	.14	0.47
9 months	29.73	22	29.76	25	0	.997	0	1.00
12 months	31.37	16	38.33	23	0.59	.444	.07	0.74
Return with Offence								
3 months	1.63	2	4.00	5	1.27	.259	.07	0.40
6 months	2.59	3	8.94	11	4.37	.037	.14	0.27
9 months	5.41	4	15.48	13	4.16	.042	.16	0.31
12 months	9.80	5	20.00	12	2.21	.137	.14	0.43
Return with Violent Offence								
3 months	0.81	1	1.60	2	0.32	.571	.04	0.50
6 months	1.72	2	1.63	2	0.004	.953	.004	1.06
9 months	1.35	1	2.38	2	0.224	.636	.04	0.56
12 months	1.96	1	3.33	2	0.198	.657	.04	0.58

Note. ICPM = Integrated Correctional Program Model; AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program.

Controlling variables that are related to returns to custody outcomes helps ensure differences between groups are related to treatment effects rather than pre-existing differences between offenders in the groups. The matching procedure controlled for term number, sentence number, aggregate sentence length, static and dynamic factor ratings, major offence, and region (Atlantic or Pacific). Age at release in years, substance abuse, and motivation were selected as other variables to control. Substance abuse and motivation were coded as dichotomous variables. For substance abuse, 1 indicates a rating of some or considerable need on the Dynamic Factors Identification and Analysis (DFIA) assessment or moderate or high need on the DFIA revised assessment. For motivation, 1 indicates a rating of medium or high motivation.

Cox regression was selected to examine outcomes on release. This type of survival analysis examines the proportion of returns to custody while considering time at risk and allowing inclusion of covariates. Table 5 displays the results of the survival analysis of any return to custody. In this analysis, there were 102 returns to custody out of 257 offenders. The follow-up time had a median of 248 and ranged from 21 to 1,236 days. Cases with follow-up times of five days or less were excluded from the analysis. These cases would have been deported shortly after being released, or would not have had sufficient time for a revocation or re-offence to have occurred and been recorded. The overall model was significant ($\chi^2(4, N = 257) = 12.13, p = .016$). However, examination of the covariates reveals that only substance abuse predicted returns to custody. Offenders with identified substance abuse need were nearly four times more likely to return to custody than offenders with ratings of no current need for improvement or low need. The AICPM/ICPM and NRCP participants did not differ significantly on returns to custody.

Table 5
Cox Regression of Any Return to Custody

Covariate	χ^2	<i>p</i>	<i>Hazard Ratio</i>
Study group (AICPM/ICPM = 1)	0.41	.52	0.88
Substance Abuse	5.14	.02	3.80
Motivation	2.19	.14	0.62
Age (years)	0.68	.41	0.99

Table 6 displays a Cox Regression model examining returns to custody with an offence. The same 257 offenders with the same follow-up periods as the first survival analysis were included in this analysis. There were a total of 27 returns with an offence. Substance abuse was removed from this analysis due to an issue with multicollinearity. Specifically, there were likely too few cases with returns to custody to include substance abuse in the analysis, allowing covariates to be highly correlated. The model presented in Table 6 was statistically significant ($\chi^2(3, N = 257) = 8.19, p = .04$), but this was due to the contribution of age at release. The AICPM/ICPM and NRCP participants did not differ significantly in returns to custody with an offence.

Table 6
Cox Regression of Return to Custody with an Offence

Covariate	χ^2	<i>p</i>	<i>Hazard Ratio</i>
Study group (AICPM/ICPM = 1)	1.41	.23	0.62
Motivation	0.50	.48	0.65
Age (years)	5.15	.02	0.94

Survival analyses of returns to custody with violent offences and with sexual offences were considered. However, due to the low frequency of these types of offences, five violent offences and one sexual offence, survival analysis was not appropriate.

Conclusion

Controlling for time of follow-up, Aboriginal participants in the AICPM/ICPM and NRCP options have similar frequencies and rates of admissions to voluntary, involuntary and disciplinary segregation. The percentage of offenders who received a discretionary release differed between the two groups with the AICPM/ICPM group more likely to be released on Day or Full Parole. The proportions of sentence served prior to release, however, were similar. Possibly, releases on parole occurred fairly close to statutory release dates, making the differences between median proportions of sentences served prior to first releases of the two groups too close to detect a reliable difference. Overall returns to custody, returns with an offence, and returns with a violent offence did not differ between the two groups when covariates

were controlled. Contrary to the early results in the Jones and Robinson (2013) report, the current trends suggest that Aboriginal offenders who participated in the AICPM/ICPM streams do as well as Aboriginal offenders from the NRCP group when controlling for pre-existing differences. The number of treated offenders in this sample who have been released is still very low, and results should therefore still be interpreted with caution.

Question # 4: Using an alternative methodology that compares Aboriginal offenders who participated in AICPM to Aboriginal offenders who participated in an Aboriginal-specific NRCP, what are the respective correctional outcomes?

Method

Participants

Participants included First Nations and Métis federal offenders from all regions who were admitted on warrants of committal. Inuit offenders were not included because there were none in the AICPM group. Appendix C displays a profile of these two groups of offenders. Inclusion in the sample – whether the offender belonged to the AICPM or Aboriginal NRCP group – depended on a number of factors. Offenders must have enrolled in a moderate or high intensity correctional program. The first moderate or high intensity program must have started after January 1st 2010 and prior to the offender’s first release from custody. They must have enrolled in at least one Aboriginal-specific program, which may have included low intensity programs, primers, and institutional maintenance programs.⁵ Offenders must have been released. Offenders were excluded if they were released on long term supervision orders, were deported, or died within a few days of release. Offenders who participated in both AICPM and NRCP were also excluded.

The AICPM group included 163 offenders who had at least one enrollment in an Aboriginal-specific primer, multi-target, or maintenance program and at least one enrollment in an ICPM or AICPM multi-target program. The Aboriginal NRCP group included 858 offenders who enrolled in one of the Aboriginal-specific NRCPs. Please see Appendix D for the list of the Aboriginal programs included from the NRCP menu in this portion of the outcome study.

Procedure

The method chosen for this stage of the analyses was designed to complement that chosen for the Jones and Robinson (2013) report and the follow-up analyses presented to respond to Question 3 above. Jones and Robinson (2013) compared offenders who had participated in AICPM in the Pacific and Atlantic regions to an historical sample, and thus introduced a potential time cohort confound. The present procedure opted to compare those Aboriginal

⁵ Eight (5%) of the AICPM group had either an Aboriginal primer or Aboriginal maintenance in addition to a multi-target program that was not culturally specific.

offenders who had participated in Aboriginal-specific ICPM and NRCP programs during the same time period but across regions. AICPM participants came from the Pacific and Atlantic regions and the Aboriginal NRCP participants came from primarily the Prairie Region, due to the higher proportion of Aboriginal offenders in that region compared to other regions, but also the Ontario and Quebec Regions. Although this method controls for the possible time cohort effect seen in response to Question 3, there may now be regional differences that confound the following analyses.

Since data for Question 4 were collected approximately a year after the data were collected for Jones and Robinson (2013), offenders with longer sentences were included in the analyses. The aggregate sentence lengths of offenders in the AICPM group ranged from 2 years to 9 years. Among the offenders in the Aboriginal NRCP group, this ranged from 2 years to nearly 10 years with one offender with a 16 year sentence and one indeterminate sentence. However, some sentence lengths are still unrepresented, and the longest sentences of this sample may be under-represented.

Unlike in the case-control matching procedure used by Jones and Robinson (2013), this method maintains as large of a sample of Aboriginal offenders as possible. It allows that the full population of Aboriginal offenders who met the selection criteria described in the Participants section to be included.

As in the procedure for the analysis to respond to Question 3, data were obtained from the OMS. Profiles of the two groups based on variables from the DFIA-R, SFA, offence data, and sentence data are included in Appendix C. Counts of institutional charges and admissions to segregation were restricted to the last six months prior to release and must have been after enrollment in the first moderate or high intensity program to control for time at risk. Holding the time at risk of institutional charges and admission to segregation constant to the 6 months prior to release allowed a simpler analysis to be conducted as opposed to using Offender Person Year (OPY) rates. An examination of suspensions of conditional release was added to this method. Percentages of each group with suspensions within given time frames were calculated, and a proportional hazards regression (survival analysis) was run to test for differences between the AICPM and Aboriginal NRCP participants. Finally, returns to custody and returns to custody with an offence were examined by fixed follow-up and proportional hazards regression analyses. The proportional hazards regression allowed inclusion of a number of covariates related to risk

of recidivism to control for pre-existing differences between the groups. In this way, one can be more confident that the observed effect of the study groups was due to the different correctional programs to which they were exposed. Jones and Robinson (2013) accomplished this, in large part, by matching the two study groups on key variables.

Results

Institutional Charges

The sample for this analysis was restricted to offenders who had six months between the start of the first main correctional program and release. Only institutional charges occurring during this six-month time period prior to release were counted. Results presented in Table 7 indicate that Aboriginal offender participants in AICPM and Aboriginal-specific NRCP were not significantly different in the likelihood of receiving minor, serious or any type of institutional charges, or in the rate of receiving the charges.

Table 7

Frequencies of Offenders with at Least One Institutional Charge in the Last Six Months after the Start of Their First Correctional Program and Prior to Release

Charge Type	AICPM (<i>n</i> = 124)		Aboriginal NRCP (<i>n</i> = 773)		Odds Ratio	<i>p</i>
	%	<i>n</i>	%	<i>n</i>		
At least 1 serious	19.35	24	18.24	141	0.93	.77
At least 1 minor	25.81	32	30.01	232	1.23	.34
At least 1 institutional charge	37.90	47	40.23	311	1.10	.62

Note. AICPM = Aboriginal-stream Integrated Correctional Program Model; NRCP = Nationally Recognized Correctional Program.

Admissions to Segregation

Odds of at least one transfer to any type of segregation were not significantly different between the AICPM participants and Aboriginal NRCP participants. Similar to the results pertaining to institutional charges, only admissions to segregation occurring in the last six months prior to release were counted provided that the offender had a full six months between the start date of his first correctional program and release. These results are presented in Table 8.

Table 8

Frequencies of Offenders with at Least One Admission to Segregation in the Last Six Months after the First Correctional Program Start Date and Prior to Release

Segregation Type	AICPM (<i>n</i> = 124)		Aboriginal NRCP (<i>n</i> = 773)		Odds Ratio	<i>p</i>
	%	<i>n</i>	%	<i>n</i>		
At least 1 voluntary	4.03	5	3.49	27	1.16	.76
At least 1 involuntary	18.55	23	13.32	103	1.48	.12
At least 1 disciplinary	1.61	2	0.78	6	2.10	.36
At least 1 of any type of segregation	20.16	25	15.52	120	1.37	.19

Note. AICPM = Aboriginal-stream Integrated Correctional Program Model; NRCP = Nationally Recognized Correctional Program.

First Release Types

Table 9 compares the frequencies and percentages of first release types for the two groups. Aboriginal offenders who participated in AICPM were significantly more likely to be granted discretionary release than Aboriginal offenders who participated in Aboriginal NRCP ($\chi^2(2, N = 1,021) = 7.13, p = .028, \phi = 0.08$). The proportion of sentence served prior to release was also significantly less among AICPM participants than Aboriginal NRCP participants, although the difference was small (See Table C2 in Appendix C.).

Table 9

Release Types of Aboriginal Offenders (N=1,021)

Release Type	AICPM		Aboriginal NRCP	
	%	<i>n</i>	%	<i>n</i>
Day or full parole	33.74	55	24.83	213
Statutory release	65.03	106	71.79	616
Warrant expiry	1.23	2	3.38	29

Note. AICPM = Aboriginal-stream Integrated Correctional Program Model; NRCP = Nationally Recognized Correctional Program.

Release outcomes

Suspensions. An offender’s release from federal custody may be suspended through a supervision warrant when the offender’s risk is judged to have become unmanageable, he violates conditions of his release, or he commits or is suspected of a crime. Supervision warrants issued between release and censor dates (the minimum of WED, death, deportation, readmission and Oct. 27, 2013) were examined. Offenders released at warrant expiry were excluded from these analyses. Of the AICPM participants, 75.78% ($n = 122$) had supervision warrants, significantly more than the Aboriginal NRCP participants (66.83%, $n = 554$, $\chi^2 (1, N = 990) = 4.99$, $p = .026$, Odds Ratio = 1.55). The odds of a suspension among AICPM participants were 1.55 times greater than the NRCP participants. This analysis, however, does not take into consideration the impact of the difference in the risk profiles of the offenders in the two groups.

A survival analysis including risk covariates in the model using a forward stepwise method indicated that the groups did not differ significantly in incurring suspensions. See Table 10 for the full survival analysis model. Both the time to suspensions, which was longer for the AICPM group, and the different risk profiles accounted for the differences in suspensions between the two groups.

Table 10
Survival Analysis of Time to Suspension (N = 859)

Covariate	χ^2	p	Hazard Ratio
Group (AICPM = 1)	0.211	.646	0.94
Age at release (years)	19.30	< .001	0.98
Gang affiliation	27.89	< .001	1.74
Statutory release	26.11	< .001	0.57
High or medium reintegration potential	39.82	< .001	0.57
Substance abuse need (DFIA-R)	6.15	.013	1.60
Employment need (DFIA-R)	4.64	.031	1.28
Moderate or greater drug abuse (CASA)	4.32	.038	1.20

Note. ICPM = Integrated Correctional Program Model; DFIA-R = Dynamic Factor Identification and Assessment – Revised; CASA = Computerized Assessment of Substance Abuse.

Returns to Federal Custody Prior to Warrant Expiry Date (WED). Table 11 below displays frequencies of offenders who returned to federal custody prior to reaching their WED.

In this analysis, the Aboriginal offenders who participated in AICPM and Aboriginal NRCP did not differ, but the procedure did not control for the time at risk or the differences in risk profiles between the two groups. A survival analysis allows for these factors to be considered.

Table 11

Any Returns to Custody within Fixed Follow-up Periods

Follow-up Period	AICPM		Aboriginal NRCP		Odds Ratio	p
	%	n	%	n		
6 Months (n = 763)	52.76	67	61.16	389	0.709	.078
9 Months (n = 503)	59.30	51	64.75	270	0.793	.339
12 Months (n = 302)	61.02	36	67.49	164	0.754	.346

Note. AICPM = Aboriginal-stream Integrated Correctional Program Model; NRCP = Nationally Recognized Correctional Program.

The mean follow-up time of the AICPM group ($M = 239.8$ days) was significantly longer than the group of Aboriginal NRCP participants ($M = 202.9$, $t(988) = 2.87$, $p = .004$, *Cohen's d* = .24). Survival analyses take this time at risk, in addition to the frequencies of returns to custody, into consideration. The AICPM and Aboriginal NRCP participants significantly differed in survival to any return to custody ($\chi^2(1, N = 990) = 8.414$, $p = .004$, *Hazard Ratio* = 0.684). The hazard ratio indicates that the AICPM group of offenders were significantly less likely to return to custody than the Aboriginal NRCP participants. The inverse of this hazard ratio indicates that the Aboriginal NRCP participants were 1.46 times greater hazard of return to custody than the AICPM participants.

Furthermore, once risk and need variables were held constant, the AICPM participants were still significantly less likely to return to custody than the Aboriginal NRCP participants (see Table 12). Risk covariates were added in a forward stepwise method prior to adding the group covariate. In addition to the covariates that were significant in the model, overall criminogenic need, overall criminal history risk, Custody Rating Scale, the other six DFIA-R need domains (Employment, Marital/Family, Associates, Attitudes, Community Functioning and Personal/Emotional), Alcohol Dependence (ADS from CASA), Drug Abuse (DAST from CASA), first federal sentence, and offender motivation were considered for inclusion but did not

significantly contribute to the model or mediate the effect of the study group variable. After controlling for these risk covariates, the treatment effect favouring the AICPM group increased.

Table 12

Survival Analysis to Any Return to Custody (N = 912)

Covariate	χ^2	<i>p</i>	<i>Hazard Ratio</i>
Group (AICPM = 1)	9.91	.002	0.64
Age at release (years)	16.79	< .001	0.985
Moderate or high substance abuse need (DFIA-R)	12.33	< .001	2.261
Release type (Statutory release = 1, Parole = 0)	24.52	< .001	1.94
High or medium reintegration potential	19.76	< .001	0.63
History of gang affiliation	14.27	< .001	1.56
Youth court history	4.73	.030	1.30

Note. AICPM = Aboriginal Integrated Correctional Program Model; DFIA-R = Dynamic Factor Identification and Assessment - Revised.

Returns to custody with an offence. Differences in reoffending prior to warrant expiry were examined. The results presented in Table 13 show non-significant differences in returns to custody with an offence between the Aboriginal offenders who participated in AICPM and Aboriginal NRCP prior to controlling for pre-existing differences between the groups.

A survival analysis can include offenders with all follow-up periods thus allowing examination of the outcomes of a greater proportion of the sample and it also considers the time to return with an offence as part of the outcome. Table 13 below provides the results of this analysis. The first return to custody of 16 (9.9%) of the 161 AICPM participants was with an offence. The first return of 107 of 829 (12.9%) Aboriginal NRCP participants was because of an offence. The survival analysis to first return to custody with an offence with study group as the only covariate included in the model was not significant ($\chi^2 (1, N = 990) = 2.994, p = .084, Hazard Ratio = 0.629$). The AICPM and Aboriginal NRCP participants did not differ significantly in first returns to custody with an offence. Once again, however, the profile of the groups were not similar and a further analysis was required that controlled for these key group differences.

Table 13

Return to Custody with an Offence within Fixed Follow-up Periods

Follow-up Period	AICPM		Aboriginal NRCP		<i>Odds Ratio</i>	<i>p</i>
	%	<i>n</i>	%	<i>n</i>		
6 Months (<i>n</i> = 763)	12.60	16	15.72	100	0.77	.371
9 Months (<i>n</i> = 503)	16.28	14	18.71	78	0.85	.596
12 Months (<i>n</i> = 302)	18.61	11	20.99	51	0.86	.689

Note. AICPM = Aboriginal-stream Integrated Correctional Program Model; NRCP = Nationally Recognized Correctional Program.

Table 14 displays the full survival model including key covariates. The same covariates considered for inclusion in the model in the previous analysis of returns to custody were explored in this analysis. Again, several of them were not significant predictors of returns with an offence and were excluded from the final model. Controlling for age at release, release type, history of gang affiliation, youth court history, and moderate or high need on the substance abuse domain of the DFIA-R resulted in a significant effect of study group. The AICPM participants were significantly less likely to return with an offence compared to Aboriginal NRCP participants when the effects of these covariates were statistically controlled.

Table 14

Survival Analysis to Return to Custody with an Offence (N = 902)

Covariate	χ^2	<i>p</i>	<i>Hazard Ratio</i>
Group (AICPM = 1)	4.09	.043	0.55
Age at release (years)	11.89	< .001	0.95
Release type (Statutory release = 1, Parole = 0)	8.20	.004	2.15
History of gang affiliation	10.17	.001	1.97
Youth court history	8.07	.005	0.48
Moderate or high substance abuse need (DFIA-R)	7.04	.008	14.47

Note. AICPM = Aboriginal Integrated Correctional Program Model; DFIA-R = Dynamic Factor Identification and Assessment - Revised.

Conclusion

Controlling for time of follow-up, Aboriginal participants in the AICPM and NRCP do not differ on rates of institutional charges or on transfer to any type of segregation. As in the previous analysis in answer to Question 3, the results for Question 4 also confirmed that the percentage of offenders who received a discretionary release differed between the two groups with the AICPM group more likely to be released on Day or Full Parole. The proportions of sentence served prior to release were significantly different favouring AICPM as well. In this analysis, when covariates and time at risk are controlled, overall results examining returns to custody and returns with an offence favoured the AICPM group. Contrary to the early results in the contracted ICPM report, the results arising from examination of Questions 4 suggest that Aboriginal offenders who participated in the ICPM/AICPM streams do better than Aboriginal offenders participating in the NRCP group.

Question #5: What is the comparative efficiency of the AICPM and the NRCP menu in assisting offenders in starting and completing programs on their correctional plans?

Method

Participants

Offenders included in this analysis were the same as those included in the analysis responding to Question 4.

Procedure

One anticipated advantage of ICPM is that it may be more efficient in terms of assisting offenders in completing the program requirements of their correctional plans than the traditional cadre of programs. To assess this for Aboriginal offenders attending AICPM and Aboriginal NRCP, several efficiency measures were created. These included time from admission to federal custody to the start of the first moderate or high intensity program, time from admission to end of the first moderate or high intensity program, time from admission to last moderate or high intensity program, and time from admission to the end of the last correctional program including maintenance programs. Table 15 presents means, standard deviations, and t-tests of the differences between the two groups in these outcomes in days. A Satterthwaite adjustment was used to account for unequal variances.

Results

The time to end of participants' last programs, whether they were moderate or high intensity programs only or included all programs started between admission and release (i.e., including institutional maintenance programs), was approximately the same for both program options (see Table 15). However, AICPM participants started and ended their first program significantly later than participants in the Aboriginal NRCP moderate or high intensity programs. AICPM Primers, in which 85 (52%) of the AICPM offenders participated, are 10 sessions, and ICPM Primers, in which 78 (48%) of the AICPM offenders participated, are 9 sessions.

Additional analyses indicated that the Aboriginal Basic Healing program was the first main program for 366 (42.7%) of the Aboriginal NRCP group.⁶ Time from admission to start of

⁶ The Aboriginal Basic Healing Program is a moderate intensity program that may be offered at reception in some regions. This was suggested as a possible explanation for the earlier start dates of programs in the Aboriginal NRCP group given that the Prairie Region has recently implemented this program at its reception centres.

first main program is still significantly shorter for the Aboriginal NRCP group ($M = 219.8$ days) than the AICPM group ($M = 284.0$ days) when Aboriginal Basic Healing was excluded and the time spent in Primers was removed ($t(653) = 3.33, p < .001, Cohen's d = 0.30$). Likewise, the time from admission to end of the first main program was significantly shorter for the Aboriginal NRCP group ($M = 290.5$ days) than the AICPM group ($M = 382.5$ days) when Aboriginal Basic Healing was excluded and the time spent in AICPM Primers was removed ($t(653) = 4.69, p < .001, Cohen's d = 0.42$).

Table 15

Efficiencies of AICPM compared to Aboriginal NRCP (N = 1,021): Days from Admission

Outcome	AICPM		Aboriginal NRCP		<i>t</i>	<i>df</i>	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Days to start of first program*	303	219	168	194	7.31	213	< .001	1.0
Days to end of first program*	402	217	226	203	9.54	220	< .001	1.29
Days to end of last program	406	217	393	247	0.69	249	.49	0.09
Days to end of last program including maintenance	457	259	444	267	0.61	232	.55	0.08
Days to start of first primer	174	208	-	-	0.36	1019	.72	0.03
Days to end of first primer	193	208	-	-	1.90	1019	.06	0.16

Note. AICPM = Aboriginal-stream Integrated Correctional Program Model; NRCP = Nationally Recognized Correctional Programs. * These analyses do not include the Primer.

Conclusion

There are no significant differences in over-all efficiency in completion of the required programs prior to release between the AICPM and the Aboriginal-specific NRCP groups. Offenders in the NRCP group, however, appear to be enrolled in, and complete, their first program significantly more efficiently than offenders in the AICPM group.

Overall Discussion and Conclusion

The current report compiles a number of analyses to address questions raised by the inconclusive results for Aboriginal offenders in the recent ICPM research report by Jones and Robinson (2013) that suggested a non-significant trend favouring the NRCP group with respect

to community supervision outcomes.

The one-to-one matching procedure used by Jones and Robinson (2013) reduced the overall number of offenders that could be included in the study. In addition, the short period of time examined from the implementation of the ICPM further reduced the number of released offenders who had an opportunity to recidivate. Another concern was that the matching procedure included offenders from the NRCP group who may have attended programs several years prior to those who attended the ICPM option, introducing a potential time cohort confound that could have been influenced by changes in CSC and Parole Board of Canada policies over time.

In the current report, we applied a number of methodologies to examine the impact of correctional programs on Aboriginal offenders in CSC. First, we conducted a brief overview of CSC studies reporting on outcomes of Aboriginal offenders who participated in CSC correctional programs. Secondly, we conducted a more extensive follow-up of the outcomes of Aboriginal offenders who were included in the Jones and Robinson (2013) research. Results were compared for Aboriginal offenders who attended the mainstream ICPM program to those who attended the Aboriginal-specific program. As well, those who attended the AICPM or ICPM options were compared to their matched pairs who attended the NRCP options. Thirdly, we used a new methodology to compare the impact of the AICPM to that of the Aboriginal-specific NRCP menu. Instead of using a matching procedure, this methodology was able to include a larger sample size by controlling statistically for variables related to risk. This procedure also has the strength of controlling for a possible cohort effect by only including offenders in the NRCP group that had attended programs at the same time as offenders in the AICPM group. Finally, we compared the two groups from the sample derived in this analysis on their relative efficiencies in assisting offenders to address their correctional program needs in a timely manner.

The overview of studies on Aboriginal offenders in correctional programs and the additional analyses indicated that there is evidence that Aboriginal offenders benefit from participation in both Aboriginal-specific and mainstream CSC correctional programs. The empirical results of the various analyses conducted to follow-up and expand upon the Robinson and Jones (2013) report indicate that, contrary to the preliminary results reported in their document, when key variables related to risk are controlled, Aboriginal offenders participating in the AICPM program do as well as, or better than, Aboriginal offenders who participated in the

Aboriginal programs in the NRCP menu when both institutional behaviour and post-release outcomes are considered. They also appear to do as well as those who participate in the ICPM option, although this result should be interpreted with caution due to low numbers. Furthermore, at this point in the implementation of the AICPM, it does not appear that this new option realises any time efficiencies relative to the NRCP model in assisting Aboriginal offenders in fulfilling the requirements in their correctional plans related to program participation.

Although this report contributes to the knowledge base on the impact of program participation among Aboriginal offenders in CSC, there are a number of limitations to the approaches taken in these analyses which reduce the strength of the conclusions that can be drawn. For the analyses completed to answer Questions 4 and 5, it is possible that regional differences in the management of offenders, the management of correctional programs, overall recidivism rates, and other potentially unknown factors may explain the observed effects. ICPM had only been introduced to two of the five regions at the time the study was conducted. For Questions 2 and 3, aggregate sentence lengths of the AICPM/ICPM group were limited to 5 years and 2 months. This presents an issue of representativeness of the population of offenders. It is possible that offenders with longer sentences differ in their responses to the AICPM/ICPM and NRCP programs. The sample identified to respond to Questions 4 and 5, however, were more representative of the sentence lengths of the population of offenders in CSC.

It should be noted that these results only compare the outcomes across these two program menus, and do not allow any conclusions regarding the overall effectiveness of the AICPM relative to a non-treatment comparison group in reducing recidivism or institutional misconducts. Furthermore, there also remain a number of important questions related to AICPM's impact on specific subpopulations, such as sex offenders and domestic violence perpetrators, that the current report was not able to address and on outcomes post warrant expiry. Further research will need to be conducted to examine these specific issues. Also, future research with a larger sample size and longer follow-up periods will allow confirmation of the current findings with respect to AICPM including examination of outcomes post warrant expiry dates.

References

- Brown, S. L. & Motiuk, L. L. (2005). *The Dynamic Factors Identification and Analysis (DFIA) component of the Offender Intake Assessment (OIA) process: A meta-analytic, psychometric and consultative review (R-164)*. Ottawa, ON: Correctional Service Canada.
- Correctional Service of Canada (2012). *Evaluation report: The Strategic Plan for Aboriginal Corrections*. Ottawa, ON: Correctional Service Canada.
- Correctional Service of Canada (2009). *Evaluation report: Correctional Service Canada's correctional programs*. Ottawa, ON: Correctional Service Canada.
- Correctional Service Canada (2007). *Commissioner's Directive 709: Administrative Segregation*. Ottawa, ON: Correctional Service Canada.
- Gendreau, P., Goggin, C., & Smith, P. (1999). The forgotten issue in effective correctional treatment: Program implementation. *International Journal of Offender Therapy and Comparative Criminology*, 43(2), 180-187.
- Jones, N. J., & Robinson, D. (2013). *A study of the efficiency and effectiveness of the Integrated Correctional Program Model (ICPM)*. Research report. Ottawa, ON: Correctional Services Canada.
- Skinner, H. A. (1982). Drug Abuse Screening Test. *Addictive Behaviours*, 7, 363-371.
- Skinner, H. A., & Horn, J. L. (1984). *Alcohol Dependence Scale (ADS): User's Guide*. Toronto, ON: Addiction Research Foundation.
- Usher, A., & Stewart, L.A. (2011). *The effectiveness of correctional programs with diverse offenders: A meta-analytic study*. Research report, Ottawa, ON: Correctional Services Canada.

Appendix A: Profiles of Offenders in the Analysis for Question # 2

Table A1 shows the profiles of the Aboriginal offender participants of AICPM and ICPM. The variables included in these profiles are important considerations when examining institutional outcomes and release outcomes presented in the results section. The AICPM group was more likely to be of First Nations racial background rather than Métis and had more extensive criminal histories. With these exceptions, the two groups were similar on the profile variables. The mean age at admission of the AICPM participants was 31 years, and of the ICPM participants was 32 years. This did not represent a significant difference ($t(92) = 0.88, p = .38$, Cohen's $d = .21$). Regarding sentence length, results indicated that distributions of aggregate sentence length are similar between the two groups (Kruskal-Wallis $\chi^2(1, N = 94) = 1.43, p = .23$). Sentence length ranged from 2 years to 5 years and 2 months with the exception of one offender with a sentence of 7 years and 6 months for the AICPM group. For the ICPM group, sentences ranged from 2 years to 5 years and 2 months for the ICPM group. The mean sentence length of the AICPM group was 2.91 ($SD = 1.02$) and of the ICPM group was 3.09 ($SD = 0.91$).

Table A1

Profile of Released Aboriginal Offenders who Participated in AICPM and ICPM (N = 94)

Variable	AICPM (n = 70)		ICPM (n = 24)		V	p
	%	n	%	n		
First Federal Sentence	58.6	41	70.83	17	.11	.29
Race					.23	.02
First Nations	87.1	61	66.7	16		
Métis	12.9	9	33.3	8		
Inuit	0.0	0	0.0	0		
Criminal History Risk					.29	.02
High	74.3	52	45.8	11		
Medium	21.4	15	37.5	9		
Low	4.29	3	16.7	4		

Table A1 continued...

Variable	%	<i>n</i>	%	<i>n</i>	<i>V</i>	<i>p</i>
Criminogenic Need					.15	.15
High	84.3	59	70.8	17		
Medium	15.7	11	29.2	7		
Low	0	0	0	0		
Substance Abuse Need	94.3	66	91.7	22	-	-
Associates Need	84.3	59	87.5	21	-	-
Attitudes Need	87.1	61	91.7	22	-	-
Employment Need	74.3	52	70.8	17	.03	.74
Marital, Family Need	57.1	40	62.5	15	.05	.65
Motivation Level					.11	.28
High	15.7	11	25.0	6		
Medium	82.9	58	70.8	17		
Low	1.4	1	4.2	1		
Reintegration Potential					.06	.84
High	7.1	5	8.3	2		
Medium	44.3	31	50.0	12		
Low	48.9	34	41.7	10		
Index Offence					-	-
Homicide	5.7	4	4.2	1		
Robbery	24.3	17	25.0	6		
Assault	22.9	16	12.5	3		
Drug	8.6	6	16.7	4		
Property	18.6	13	25.0	6		
Traffic	7.1	5	0	0		
Other	12.9	9	16.7	4		
Custody Rating Scale					-	-
Minimum	14.3	10	16.7	4		
Medium	75.7	53	79.2	19		
Maximum	10.0	7	4.2	1		

Note. Chi-squared tests are not reported when more than 20% of expected frequencies are less than 5. To accommodate the test, results for race exclude Inuit offenders. Criminogenic need and motivation exclude the low category. Results were not computed for Index Offence, the Custody Rating Scale, and the substance abuse, associates, attitudes, and personal/emotional needs domains because multiple categories had low expected frequencies.

ICPM = Integrated Correctional Program Model; AICPM = Aboriginal-stream ICPM.

Appendix B: Number of Program Enrollments for Aboriginal Offenders in Each Group

Both the AICPM and Aboriginal NRCP participants often had enrollments in multiple correctional programs. The following table presents the frequencies of the number of enrollments in correctional programs. Overall results are also divided among moderate or high programs, maintenance programs and primer programs.

Table B1

Counts of Enrollments in Correctional Programs during AICPM and Aboriginal NRCP Participants' Sentences (N = 1,021)

Number of Program Enrollments	AICPM		Aboriginal NRCP		χ^2 (df)	ϕ	p
	%	n	%	n			
Any Correctional Program on the Sentence					35.90 (4)	.19	< .001
1	0.0	0	15.03	129			
2	26.99	44	24.71	212			
3	41.10	67	28.32	243			
4	22.09	36	17.48	150			
5 or more	9.82	16	14.45	124			
Moderate or High Intensity Programs on the Sentence					263.57 (2)	.51	< .001
1	92.64	151	25.87	222			
2	6.13	10	48.14	413			
3 or more	1.23	2	25.99	223			
Maintenance Programs on the Sentence					6.29 (3)	.08	.10
0	33.74	55	43.12	370			
1	38.04	62	33.80	290			
2	20.86	34	15.27	131			
3 or more	4.91	12	7.81	67			
Primer or Pre-treatment Programs on the Sentence					-	-	-
0	0.0	0	100	858			
1	95.71	156	0.0	0			
2	4.29	7	0.0	0			

Note. AICPM = Aboriginal-stream Integrated Correctional Program Model; NRCP = Nationally Recognized Correctional Program.

Appendix C: Profiles of Offenders in the Analyses for Question # 4

The following tables provide a profile of the Aboriginal offenders included in the analyses for Question 4.

Table C1

Demographic Characteristics

Variable	AICPM (<i>N</i> = 163)		Aboriginal NRCP (<i>N</i> = 858)		<i>O.R./V</i>	<i>p</i>
	%	<i>n</i>	%	<i>n</i>		
Aboriginal ancestry					.99 ^a	.97
Métis	18.4	30	18.5	159		
First Nations	81.6	133	81.5	699		
Marital status						
Married / common law	40.3	62	38.5	313	.06 ^b	.18
Single	50.7	78	56.0	456		
Separated / divorced / widowed	9.1	14	5.5	45		

Note. AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program. O.R. = Odds Ratio. V = Cramer's V effect size. Percentages were calculated using the total *n* available (excluding missing or unknown values).

^aOdds ratio. ^bCramer's V.

Table C2

Sentence Characteristics

Variable	AICPM (<i>N</i> = 163)		Aboriginal NRCP (<i>N</i> = 858)		<i>d</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Age at admission (years)	31.7	9.0	31.5	9.8	0.02	.83
Sentence length (years)	3.0	1.2	2.9	1.1	-	.80 [†]
Proportion of Sentence Served Incarcerated	0.57	0.14	0.59	0.14	0.19	.03
	%	<i>n</i>	%	<i>n</i>	<i>O.R./V</i>	<i>p</i>
Sentence number					.53 ^a	< .001
First federal sentence	52.8	86	68.0	583		
Offence					.19 ^b	< .001
Assault	27.8	45	24.6	211		
Robbery	24.1	39	16.7	143		
Property	21.0	34	14.2	122		
Sexual	0.6	1	13.6	117		
Drug	6.2	10	9.9	85		
Other	10.5	17	8.2	70		
Traffic	4.3	7	9.1	78		
Homicide	5.6	9	3.7	32		
Region of admission					.96 ^b	< .001
Atlantic	11.0	18	0.5	4		
Ontario	1.2	2	14.7	126		
Quebec	0.0	0	3.4	29		
Prairie	3.7	6	81.5	699		
Pacific	84.1	137	0.0	0		
Custody Rating Scale					.17 ^b	< .001
Maximum	22.1	36	10.3	88		
Medium	68.1	111	65.0	558		
Minimum	9.8	16	24.7	212		

Table C2 continued...

Type of release					.08 ^b	.03
Parole (full or day)	33.7	55	24.9	213		
Statutory release	65.0	106	71.9	616		
Warrant expiry	1.2	2	3.3	28		

Note. AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program. d = Cohen's d. O.R. = Odds Ratio. V = Cramer's V effect size.

Percentages were calculated using the total *n* available (excluding missing or unknown values).

† A nonparametric test was used (Kruskal-Wallis). ^aOdds ratio. ^bCramer's V.

Table C3

Profile Characteristics of for the Two Groups

Variable	AICPM (<i>N</i> = 163)		Aboriginal NRCP (<i>N</i> = 858)		O.R.	<i>p</i>
	%	<i>n</i>	%	<i>n</i>		
Educational attainment					1.40	.15
High school	19.4	28	14.8	114		
Less than high school	80.6	116	85.3	659		
Youth criminal history					1.41	.06
Yes	69.9	114	62.2	523		
No	30.1	49	37.8	318		
Prior adult criminal history						
Yes	91.4	149	88.9	748	1.32	.35
No	8.6	14	11.1	93		

Note. AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program. O.R.=Odds Ratio. Percentages were calculated using the total *n* available (excluding missing or unknown values).

Table C4

Overall Ratings of Criminal History Risk, Criminogenic Need, Motivation Level, and Reintegration Potential, Based on First Assessment on the Current Sentence

Variable	AICPM (<i>N</i> = 163)		Aboriginal NRCP (<i>N</i> = 858)		<i>V</i>	<i>p</i>
	%	<i>n</i>	%	<i>n</i>		
Criminal history risk					.16	< .001
High	74.2	121	52.5	450		
Medium	23.9	39	41.3	354		
Low	1.8	3	6.3	54		
Criminogenic need					.15	< .001
High	87.1	142	68.8	590		
Medium	12.9	21	30.0	257		
Low	0.0	0	1.3	11		
Motivation level					.04	.34
High	11.7	19	15.6	134		
Medium	79.1	129	74.2	637		
Low	9.2	15	10.1	87		
Reintegration Potential						
High	4.3	7	9.6	82	.11	.002
Medium	35.6	58	44.4	381		
Low	60.1	98	46.0	395		

Note. AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program. *V* = Cramer's *V* effect size.

Note. Percentages were calculated using the total *n* available (excluding missing or unknown values).

Table C5

Moderate or High Need Ratings on the DFIA-R Criminogenic Need Domains, First Assessment

Moderate/High Need	AICPM (N = 163)		Aboriginal NRCP (N = 858)		O.R.	p
	%	n	%	n		
Employment	82.1	119	75.9	611	1.45	.11
Marital/Family	62.8	91	47.6	382	1.86	< .001
Associates	88.3	128	67.7	545	3.59	< .001
Substance Abuse	92.2	141	89.8	723	4.00	.004
Community						
Functioning	63.5	92	29.8	239	4.10	< .001
Personal/Emotional	98.6	143	84.5	680	13.1	< .001
Attitudes	93.1	135	62.3	501	8.16	< .001

Note. AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program. O.R.=Odds Ratio. Percentages were calculated using the total *n* available (excluding missing or unknown values).

Moderate or high need was collapsed to include the DFIA-R indicators 'moderate need for improvement' and 'high need for improvement'. This is in contrast to asset, no, or low need, which includes the indicators 'asset to community adjustment', 'no need for improvement', and 'low need for improvement'.

Table C6

Ratings on Substance Abuse Measures (CASA)

Measure	AICPM (N = 163)		Aboriginal NRCP (N = 858)		O.R.	p
	%	n	%	n		
Alcohol Dependence Scale					0.66	.05
Severe/substantial/moderate	29.2	35	38.6	322		
Low/none	70.8	85	61.4	513		
Drug Abuse Screening Test					1.93	.001
Severe/substantial/moderate	64.2	77	48.1	402		
Low/none	35.8	43	51.9	433		

Note. AICPM = Aboriginal-stream ICPM; NRCP = Nationally Recognized Correctional Program. O.R.=Odds Ratio. Percentages were calculated using the total *n* available (excluding missing or unknown values).

Appendix D: Aboriginal-Specific Programs

Table D1 lists the correctional programs offered by CSC which have an Aboriginal cultural component. As described in the method section for Question 4, eligibility for inclusion in the sample required enrollment in at least one Aboriginal-specific correctional program. Therefore, the 163 Aboriginal offenders in the AICPM group and the 858 Aboriginal offenders in the Aboriginal NRCP group must have enrolled in at least one of the following programs. Another inclusion criterion was that offenders must have enrolled in a moderate or high intensity program. The programs to meet this requirement did not have to be Aboriginal-specific. Offenders included in the analyses for Question 4 may have taken moderate and high intensity programs that are not listed below.

Table D1

Aboriginal-Specific Correctional Programs to Determine Inclusion in the Study

Program Type	Program	Intensity Level
Violence Prevention Program	In Search of Your Warrior	High
Sex Offender Program	Tupiq	Moderate
Sex Offender Program	Waseya	Moderate
Sex Offender Program	Mikowahp Program	Low
Sex Offender Program	Aboriginal Sex Offender Program	Maintenance
Substance Abuse Program	Aboriginal Offender Substance Abuse Program (AOSAP)	High
Substance Abuse Program	Aboriginal Offender Substance Abuse Program (AOSAP)	Moderate
Family Violence Prevention	Aboriginal High Intensity Family Violence Prevention Program	High
Living Skills	Aboriginal Basic Healing Program	Moderate
AICPM	Aboriginal Multi-Target Program	High
AICPM	Aboriginal Multi-Target Program	Moderate
AICPM Primer	Primer Aboriginal	Primer
AICPM Primer	Non-Intake Primer Aboriginal	Primer
AICPM Maintenance	Institutional Maintenance Program – Aboriginal	Maintenance

Note. AICPM = Aboriginal-stream ICPM.