

————— **Research Report** —————

The High Intensity Substance Abuse  
Program (HISAP):  
Results from the Pilot Programs

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**The High Intensity Substance Abuse Program (HISAP):  
Results from the Pilot Programs**

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**June 2003**

## **Executive Summary**

Since the early 1990s, the Correctional Service of Canada has provided a moderate intensity substance abuse treatment program for its offenders, as well as, a low intensity community-based program. With the changing offender population profile it was recognized that the Service needed a program to address the needs of federal offenders identified as having substantial to severe substance abuse problems. Consequently, a multi-year development plan for the High Intensity Substance Abuse Program (HISAP) program was initiated and the first pilot program began operating on February 19, 2001. This was followed by additional pilots at 5 other sites (Pilot 1), and the pilots were repeated two additional times (Pilots 2 and 3). While 117 offenders started in Pilots 1 and 2, 94 offenders (80%) completed the 128 day intensive treatment program. An additional 51 offenders started HISAP in Pilot 3, bringing the total to 168 offenders.

Offenders participating in the HISAP were mostly Caucasian (89%) with an average of 8% Aboriginal participation across the three pilots. The mean age was 36 years old, and this was consistent across all three pilots. The range of age for program participants was from 19 to 58 years.

Three-quarters (77%) of the HISAP participants were identified as substantially or severely addicted to drugs while one quarter (24%) were substantially or severely addicted to alcohol. Combining alcohol and drug addiction, the results indicated that 90% of program participants were severely or substantially addicted based on the results of standardized tests. The remaining 10% were identified as program participants by parole officers who considered their problems to be severe enough to require HISAP treatment.

Pre- and Post-test measures of attitudes, beliefs and thinking indicated positive change as a result of the program. These intermediate measures of outcome suggest that the program was meeting its objectives.

The results suggest that the HISAP program had a positive impact on institutional behaviour with both a decline in the overall rate of misconducts (.48 to .15) and a decline in the percentage of participants who had at least one misconduct (27% to 12%).

Urinalysis results proved inconclusive in determining the effectiveness of the program with Pilot 1 showing an increase in positive (and refusals) tests in the post-program period, while in Pilot 2 there was an observed decline. Given that HISAP participants are the most addicted offenders, it was encouraging to see the rate of positive tests in the post program period decline to the level of the National comparison group.

HISAP participants were more likely to receive a discretionary release than a matched comparison group. In addition, the earlier release possible with discretionary release resulted in the saving of 211 custody-days for the program participants. Based on estimated costs of incarceration and community supervision, this would create a gross saving of almost \$30,000 per HISAP participant. Some refinement of this result may be needed as much of the saving is the result of a few cases who were released much earlier.

With a fixed-length 6 month follow-up period, the results indicated that HISAP participants and were less likely to readmitted (26% vs. 32%) to custody and were less likely to have their conditional release revoked as a result of a new offence (4% vs. 8%), as compared to the Matched sample. Given the days saved as a result of the slightly lower rate of return to custody, it is projected that the program could save 9 days per program participant, or approximately, \$1,224.

Overall, HISAP has been successful in meeting its objectives. Specifically, substantial and severely addicted offenders participated, positive changes in beliefs and thinking were identified, there was reduction in misconducts, discretionary release was more likely, and readmission was less likely within 6

months of release for HISAP participants. In addition, cost savings were identified as a result of the program.

Additional research is needed to confirm the results through a longer follow-up and the inclusion of more cases in the follow-up period.

## **Acknowledgements**

In addition to the authors, a number of people contributed to the production of this report. In particular, Collette Cousineau was instrumental in generating the many databases used for the study. Much of the data needed to be regenerated just as the report was being completed and Ms. Cousineau worked diligently to ensure the information was available to the researchers. Mark Nafekh also assisted with the development of the data sets.

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## **Introduction**

Correctional systems around the world are faced with the challenges created by offenders who are addicted to drugs and alcohol, and whose use of these intoxicants is linked to their criminal behaviour. To effectively address the criminal behaviour, correctional systems need to assist offenders to overcome their problems with drugs and alcohol. An international conference held in Canada recently (Addictions Research Centre, 2003) on substance abuse in corrections concluded that one of the priorities for program development is meeting the needs of specialized populations.

Canada's federal correctional system has determined that approximately 80% of offenders in custody have a substance abuse problem that is linked to their criminal behaviour. Based on objective testing of their substance abuse problems, the majority of these offenders will require some level of treatment for their problem while they are serving their sentences.

In the early 1990s the Correctional Service Canada began offering a new program for the treatment of substance abuse. The program, known as the Offender Substance Abuse Pre-release Program (OSAPP), was designed to meet the needs of offenders with moderate substance abuse problems and was based on the cognitive behavioural approach to treatment. OSAPP was followed shortly after by a community based program known as Choices. Choices was designed to reinforce what had been learned in OSAPP, and to provide a treatment program for offenders who did not require intervention while in prison. These programs were evaluated in a series of studies in the late 1990s (T3 & Associates, 1998) and were shown to be effective at reducing the likelihood of a return to custody by treated offenders.

However, these programs were unable to address the special needs of the most severely addicted offenders and work was initiated on the development of a new program called the High Intensity Substance Abuse Program (HISAP). Initial

development of HISAP was completed in 2000 and the program was implemented on a pilot basis starting in February 2001 across six federal institutions.

A High Intensity Substance Abuse Program was needed to address the substance abuse problems of offenders who were identified as having a substantial or severe drug or alcohol problem. This group accounts for between 10% and 20% of offenders with substance abuse problems. In addition to their substance abuse problems, these offenders have other criminogenic needs, tend to have long criminal histories, and have been resistant to program participation. Where they have started participating in treatment programs they have frequently withdrawn, or been unable to complete the program for various reasons.

### **Program Description**

HISAP is non-residential program being tested on a pilot basis in prisons operated by the Correctional Service Canada (CSC). The program will undergo revisions following the completion of the pilot testing and consultations with staff and participants. CSC is responsible for managing offenders given a sentence of two years or more by the courts. Participants in the program reside in their regular living units and participate in the program as part of their daily activities.

The Application for Accreditation for HISAP describes the theoretical basis for the programs as follows:

... is a cognitive-behavioural intervention based on Social Learning theories of human behaviour...The model of change is augmented by the therapeutic methods of motivational interviewing (Miller & Rollnick, 1991), Rational Emotive Behavior Therapy (Ellis et al., 1988), problem solving (D'Zurilla, 1986) and relapse prevention (Marlatt & Gordon, 1985; Parks & Marlatt, 1999). All of these psychological theories and therapeutic approaches are integrated with the principles of effective correctional treatment (Andrews, Bonta, & Hoge, 1990; Andrews & Bonta, 1998)

The program consists of 100 group and individual treatment sessions with a minimum of five individual sessions. The sessions are usually 2 hours long, with one or two sessions per day, and an average of 6 to 8 sessions per week. Total program time is between three and four months.

The sessions are divided into eight modules:

1. Orientation
2. Should I change
3. Understanding behavior
4. Cognitive coping
5. Behavioural coping
6. Relapse prevention
7. Life area planning
8. Transition

### **Evaluation overview**

The evaluation is designed to determine if the HISAP had a positive impact on the behaviour of participants. More specifically, the evaluation looks at whether the program produced a change in attitudes and beliefs, was able to reduce for the participant the frequency of misconducts in the institution and the rate of positive and refused urinalysis testing, resulted in earlier release from prison, and successful reintegration (no readmission) into the community.

The operationalization of these measures is presented in the Method and Results sections of the report. While not structured this way the evaluation sought answers to the following questions:

1. Were the most severely addicted offenders included in the pilots? That is, were the program participants identified as being at a substantial or severe level of substance abuse.
2. Did the program participants differ in meaningful ways from the general population of offenders?

3. Did the program change attitudes and beliefs about substance abuse and did it increase knowledge and skills as measured before and after the program?
4. Did the program affect institutional behaviour?
5. Did the program increase the likelihood of being granted a discretionary release (parole or day parole)?
6. Did program participants remain in the community longer than non-participants?

## **Methodology**

### **Program Participants**

A total of 117 male offenders from 6 medium security institutions across Canada participated in the first two HISAP Pilots, Pilot 1 and Pilot 2. An additional 51 male offenders participated in Pilot 3. Of these, 94 completed Pilots 1 and 2. Additional descriptive information about the program participants are presented in the Results section.

### **Data sources**

Data for the study were from two main sources, assessment instruments completed by offenders and the Offender Management System. Details of the assessment instruments are presented later in the Methodology. The Offender Management System (OMS) is a computerized file system used by the Correctional Service Canada to maintain all offender records. The system includes most information that is required to manage an offender while incarcerated or under supervision. Examples of the types of information in the system include, demographic information, sentence and conviction information, all admission and release records, risk and need assessments, substance abuse assessment, urinalysis results, misconduct information, reports on offender performance, and related records. These data are collected and used largely for administrative purposes, but they provide the basis for research so the outcome of programs can be evaluated. Details of specific data sets are presented below.

### **Comparison Groups**

Three groups of offenders are used to compare with the program participants, a Matched sample group, HISAP Non-completers, and a National Comparison group.

### *Matched sample*

A sample of offenders matched to HISAP participants was selected from the entire population of offenders who were in custody in January, 2001, which approximates the HISAP Pilot start dates. The following six variables were used in the matching algorithm:

1. Static factors (criminal history risk) from the Offender Intake Assessment (OIA); offenders are rated on a three point scale (high, medium, low) after reviewing over 100 static risk factors, including previous offence history, current offences, etc.
2. Dynamic factors (criminogenic need) from the Offender Intake Assessment (OIA); for dynamic factors offenders are rated on a three point scale (high, medium, low) after reviewing nearly 200 indicator items; assessing criminogenic domains, such as substance abuse, education and employment, marital family relationships, associates and social interaction, community functioning, personal and emotional status, and attitudes.
3. Age, categorized as less than 30 years of age or 30 years and older.
4. Severity of drug problems based on the results of the Drug Abuse Screening Test (Skinner & Horn, 1982); ratings are based on normative data for the scale and classified on a five-point scale (none, low, moderate, substantial, severe)
5. Severity of alcohol problems based on the results of the Alcohol Dependence Scale (Horn, Skinner, & Wanberg, 1984); ratings are based on normative data for the scale and classified on a five-point scale (non, low, moderate, substantial, severe).

6. Sentence length, categorized as less than 5 years or 5 years or more.

The matching algorithm should have produced a group of equal size to the HISAP group. However, for some of the HISAP participants, OIA static and dynamic variables were not available so their matches could not be identified. HISAP participants who could not be matched because of missing variables were serving long sentences and/or were admitted to federal custody prior to OIA implementation. Therefore, the Matched sample is smaller than the HISAP group. While the Matched sample did not participate in HISAP, they may have participated in other programs available in the institution including the moderate intensity Offender Substance Abuse Pre-release Program (OSAPP).

#### *Completers and Non-completers*

In any program, some of the people who start are unable to complete all of the sessions. Those who do not complete a program are in themselves an interesting group for analysis, and in some program evaluations Non-completers are used as a comparison group. For the purposes of this report, Non-completers are retained in the description of the participants, as these were the offenders who requested and were started in the program. However, for the pre-post-program measures and the follow-up, only the results of Completers are presented. Where appropriate, comparisons are made between Completers and Non-completers to investigate the differences between these groups.

#### *National comparison*

The demographic and risk assessment variables for the participants are compared to the 12,300 offenders who were in prison on January 2001. This comparison group is used to determine if the program participants are different from the general population of offenders. If the program is being targeted at the most severely addicted offenders then the percentage with those rated as high static risk and high dynamic risk should be greater in the HISAP group.



## **Program Assessment Instruments**

To determine if HISAP participants changed attitudes, beliefs and thinking patterns targeted in the program, a battery of eight scales was administered at the beginning and end of the pilot programs. The eight assessment scales included two subscales from the Personal Reaction Questionnaire. In addition to the eight scales measuring program outcome, the Paulhus Deception Scale was also administered. Descriptions of each of the assessment instruments follows.

***Beliefs about Substance Use Inventory*** measures many of the commonly held beliefs about drug and alcohol use, e.g., "I could not be social without using", and "If someone has a problem with drugs, it's all genetic". The program targeted knowledge about substance abuse and a decrease in the score on this scale would indicate improvement. Responses are provided on a 9-point Likert type scale ranging from Completely disagree (1) to Completely agree (9).

***Cravings Beliefs Questionnaire*** measures beliefs about the craving phenomenon, e.g., "I'll always have cravings for drugs", and "The craving is my punishment for using drugs". A reduction in the score on this scale indicates improvement. The questions are answered on a 7-point Likert type scale with responses ranging from Totally disagree (1) to Totally agree (7).

***Drinking-Drugs Related Locus of Control Scale*** measures an individual's perceptions about the extent to which substance abuse and recovery are under personal control (internal locus of control), or under the influence of chance, fate, or powerful others (external locus of control). A more external locus of control is related to greater dependence and impairment, and perception of control appears to become more internal over the course of successful treatment. Response to the questions are provided on a 5-point Likert type scale with response ranging from Strongly agree (1) to Strongly disagree (5)

***Irrational Values Scale*** is one of two measures that focus directly on the individuals' response to the targeted changes in thinking and behavioural

strategies used in the program; these strategies were adapted from Ellis' Rational-emotive Behaviour Therapy (RBT). The *Irrational Values Scale* is useful in measuring clients' responses in programs where the goal is to challenge and refute the clients' unrealistic, dysfunctional, or irrational ideas, e.g., "It is a terrible catastrophe when things are not as one wants them to be." Responses are provided on a 9-point Likert type scale ranging from Completely disagree (1) to Completely agree (9).

***Rational Behaviour Inventory*** measures the tendency to hold and act upon irrational and absolutist beliefs, e.g., "It is impossible at any given time to change one's emotions", and " I shrink from facing a crisis or difficulty." Responses are provided on a 5-point Likert type scale ranging from Strongly disagree (1) to Strongly agree (5). A lower score indicates more appropriate beliefs.

***Assertiveness Self-report Inventory*** measures the individual's assertiveness in a very specific manner, in that items indicate the behaviour, context, and other people involved in the situation described. It predicts the individuals' assertive solutions to specific dilemmas. In this case, it is related to the program's target of coping with contextual factors in substance abuse, and in general. Responses are provided in a true/false format.

***Personal Reaction Questionnaire*** (abbr.) contains two subscales. For the ***Impulsivity subscale***, high scores reflect impulsivity, antagonism, and non-compliance while low scores relate to control and conformity. For the ***Self-esteem subscale*** high scores reflect negative self-esteem and moodiness, and low scores reflect positive self-esteem. Responses to the scales items are provided as Yes/No.

***Paulhus Deception Scale*** was used to provide an indication of the validity of the individuals' "response set". It has two subscales, measuring ***Self-deception*** and ***Impression management***. High scores on the Self-deception subscale indicate that the person evaluates himself in a more favourable light than others would, and he believes that what he is saying is true. High scores on the Impression

management subscale indicate that the person is trying to present himself in a socially desirable manner, in a more favourable light than he believes to be true, similar to a "lie" scale. Responses to the scales are provided on a 5-point Likert type scale ranging from Not true (1) to Very true (5).

### **Institutional Outcome Measures**

***Institutional misconducts*** are recorded in the offender record for behaviours that result in formal charges within the institution. For the purposes of the follow-up, three types of charges are investigated, possessing or distributing contraband, taking intoxicants, failing or refusing urinalysis. For each type of misconduct, the number registered in the year prior to the start of the program and the number registered in the year following the program are counted. Misconducts are relatively rare events so the frequencies tend to be low. To ensure one individual is not responsible for a high percentage of misconducts, results are also presented in terms of the number of individuals with at least one misconduct in the period before and after the program.

A recent study by French and Gendreau (2003) has linked, through meta-analysis, the impact of effective programming to reductions in institutional misconducts. In addition, their analyses indicated that reductions in misconduct are also linked to reductions in recidivism after release.

***Random Urinalysis*** testing for the presence of drugs are conducted on approximately 5% of offenders in institutions each month. The selection is done with replacement so there is a possibility that an offender will be tested more than once over a year. To test the effectiveness of the HISAP program the urinalysis results are compared across three time periods, the 12 months prior to the start of the program, the period of the program and the 12 month period after the program. Given the small number of cases involved in the program, the

decision was made to use the results of all tests during the periods discussed, so an individual may be tested more than once.

For any test requested, three outcomes are possible, a negative test (no drugs present), a positive test (evidence of drug use in the urine), and refusal to submit a sample. (Samples may also be identified as diluted or altered by the testing procedures, but these are relatively rare events.) Results are presented for both the number of positive tests and the number of refusals to submit a sample. It is not clear how to combine refusals with positive tests since it is possible that some refusals occur for reasons other than recent drug use. However, combining refusals and positive tests provides a maximum drug use result, with the real number being somewhere between what is observed for positives and what is observed for the combination of positives and refusals.

### **Release and Readmission Outcome Measures**

***Type of release*** is an indicator of the level of risk the National Parole Board perceives the offender to present to the community. Offenders may be granted a discretionary release (day parole or full parole) before they have served two-thirds of their sentence, or a statutory release when they have served two-thirds of their sentence. Statutory release is mandated in law, and only under exceptional circumstances can offenders be kept in custody beyond two-thirds of their sentence. Statutory release is only available for offenders serving determinate sentences, while all releases for those serving indeterminate sentences (mostly offenders serving life sentences) are discretionary.

Offenders who receive a discretionary release are judged by the National Parole Board to be manageable in the community prior to their statutory release date. If the HISAP program had a positive effect on offenders they would be more likely to be granted a discretionary release. Discretionary releases granted earlier in the sentence can have a significant impact on the amount of time an offender spends in custody. An effective program, provided earlier in the sentence can

substantially reduce the overall cost of incarcerating an offender by reducing the time they must spend in custody.

***Return to custody*** for offenders may occur as a result of their conditional release being revoked or, after their sentence has been completed, for a new offence. Only the National Parole Board has the authority to revoke a conditional release. The revocation may occur because the offender has failed to meet the conditions of his or her release, or because they have committed a new offence.

Failure to meet the conditions of release is sometimes referred to as revocation for a technical violation, and usually occurs because the parole officer and the National Parole Board believe the offender's behaviour is deteriorating and they are becoming a risk to themselves or their community. The most common technical violations include, being unlawfully at large (usually the result of failing to meet with the parole officer or having left a prescribed living area), failing to meet an abstinence condition (continuing to drink alcohol or use drugs), and failing to meet other conditions of release.

Revocation with a new offence occurs when the offender is suspected of having committed a new offence by the parole office, usually resulting from information supplied by the police. In addition, an offender may be readmitted to prison after their sentence is completed. In this case the reason for the readmission is always the result of committing a new offence.

## Results

The results are presented in five sections, Program characteristics, Offender profiles, Pre- and Post-program assessment, Institutional outcome and Release and readmission outcome.

### Program Characteristics

The duration of the program varied between Pilots and across sites. Overall, the average duration of the program across the 6 sites for Pilots 1 and 2 was 128 days (4 months, 1 week). For Pilot 1 the average duration was 113 days and for Pilot 2 the duration was 142 days. These results and ranges are presented in Table 1.

In any program, some of the people who start are unable to complete all of the sessions. Those who do not complete a program are in themselves an interesting group for analysis, and in some program evaluations Non-completers are used as a comparison group. Completion results for each of the HISAP pilots are presented in Table 1.

**Table 1: Program characteristics**

Variable	Pilot 1	Pilot 2	Combined
Average duration of program (days)	113	142	128
Range of duration (days)	95 - 131	120 - 157	95 - 157
Number of sites	6	6	6 <sup>1</sup>
<b>Percent completing programs</b>	79% (n = 46)	81% (n = 48)	80% (n = 94)
Drop out in 1 <sup>st</sup> half	9% (n = 5)	10% (n = 6)	9% (n = 11)
Drop out in 2 <sup>nd</sup> half	12% (n = 7)	8% (n = 5)	10% (n = 12)
<b>Number of cases</b>	58	59	117

<sup>1</sup> Pilot 1 and Pilot 2 sites were the same.

Overall 80% of the offenders who started HISAP completed it. While the variation in completion rates between Pilots 1 and 2 was relatively small, the variation across institution was somewhat larger with completion rates of between 68% and 95% across the institutions. Completion rates by institution are presented in Appendix A. Program drop out occurred throughout the program with approximately 9% dropping out in the first half of the program and 10% dropping out in the second half.

### **Offender Profiles**

The profile of participants includes all offenders who started the program. Results are presented for each of the three pilots and for a National comparison group. The profile information is divided into four sections, demographic variables, static factors and dynamic factors, severity of substance abuse problem, and criminal history.

#### *Demographic variables*

Across the three pilots, 89% of program participants were Caucasian, 8% were Aboriginal and 3% were from other racial groups. Comparing these results with those for the National comparison group presented in Table 2, indicates that Caucasians are over-represented, as they account for 72% of the inmate population. The 8% Aboriginal participation rate is of concern given that approximately 17% of the inmate population is Aboriginal, suggesting an under-representation of this group in the program. Results for the different pilots indicate that Pilot 2 had 16% Aboriginal participation. The low participation rate for Aboriginal offenders may indicate the need for some additional intervention with these offenders. A similar result was observed for the "other" race category, again suggesting an under-representation of other races in the program.

Marital status was consistent across the three pilots with approximately half, or 47% of participants reporting they were single. Slightly less than half, or 42% of

program participants reported that they were married or living common law prior to admission and 11% reported they were divorced or separated. These results are consistent with those in the National comparison group.

Mean age was consistent across the three pilots with an average age of 36 years reported. The age range varied slightly across the pilots with the youngest participant being 19 in Pilot 3 and the oldest being 58 in both Pilots 1 and 2. Mean age of the National comparison group was also 36 years.

**Table 2: Demographic characteristics program participants (all) and the National comparison group.**

Variable	Pilot 1	Pilot 2	Pilot 3	Combined	National Comparison
<b>Race</b>					
Caucasian	93%	81%	94%	89%	72%
Aboriginal (status and non-status Indian, Inuit, Métis)	5%	15%	4%	8%	17%
Other	2%	3%	2%	2%	11%
<b>Number of cases</b>	57	59	51	167	12,270
<b>Marital status</b>					
Married/common law	42%	46%	38%	42%	41%
Divorced or separated	9%	11%	13%	11%	10%
Single	49%	44%	48%	47%	49%
<b>Age (at start of program)</b>					
Mean	36	36	36	36	36
Range	24 - 58	20 - 58	19 - 55	19 - 58	16-84
<b>Number of cases</b>	55	57	52	164	12,330



### *Static and dynamic factors*

Approximately 55% of the HISAP participants were rated high on static factors at the time of admission and approximately 75% were rated as high on the dynamic factors. This compares to the National comparison sample in which 60% of inmates were rated as high on static factors and 66% of inmates were rated as high on dynamic factors. The HISAP participants were slightly less likely to be rated high on static factors (more likely to be classified as moderate need) and more likely to be classified as high on dynamic factors than the National comparison group (see Table 3).

Offenders at the greatest risk for reoffending are those identified as high on both the static and dynamic factors. Results presented in Table 3 indicate that approximately 50% of the HISAP participants were rated high on both static and dynamic factors, which is similar to the National comparison group (51%). There was some variability across the pilots with the range from 47% to 56%, but the variability probably results from the small number of cases.

In terms of specific dynamic domains, results indicate that almost all HISAP participants (98%) were identified as have substance abuse as a criminogenic need, and this is substantially higher than for the National comparison group in which the rate was 73%. The HISAP participants were slightly more likely than the National comparison group to have Associates identified as a need, but were less likely to have identified as need areas Education and employment, Marital and family, Personal and emotional and Attitudes. There was no difference between the groups for Community functioning.

**Table 3: Static and dynamic factors for HISAP participants (all) and the National comparison group.**

Variable	Pilot 1	Pilot 2	Pilot 3	Combined	National Comparison
<b>Static factors (criminal history)</b>					
High	56%	61%	49%	55%	60%
Moderate	40%	34%	45%	40%	33%
Low	4%	5%	6%	5%	7%
<b>Dynamic factors (criminogenic need)</b>					
High	77%	83%	67%	75%	66%
Moderate	17%	17%	33%	23%	29%
Low	6	0	0	2%	5%
<b>High static and dynamic factors</b>	48%	56%	47%	50%	51%
<b>Number of cases<sup>1</sup></b>	52	41	51	144	12,210
<b>Dynamic factor domains identified as a problem</b>					
Substance abuse	96%	98%	100%	98%	73%
Education/employment	44%	39%	53%	46%	56%
Marital / family	52%	41%	39%	44%	51%
Associates/social interaction	69%	65%	67%	68%	64%
Community functioning	48%	37%	39%	42%	43%
Personal / emotional	90%	83%	88%	88%	92%
Attitude	56%	41%	51%	50%	62%
<b>Number of cases<sup>1</sup></b>	52	41	51	144	12,063

<sup>1</sup>Some offenders did not have risk and need data available in their file as a result of admissions occurring before 1990.

### *Severity of substance abuse problem*

Results presented in Table 4 indicate that 77% of the HISAP participants had a substantial or severe drug abuse problem, while a much smaller percentage, 24%, had a serious alcohol abuse problem. These rates are very high compared to the National comparison group that had 20% of inmates rated a substantial or severe for drug abuse and 7% at this level for alcohol problems. Some HISAP participants appear to have low to no problem with drug abuse or alcohol, this occurs in the data because the analyses are separate for each problem area. Someone with a low or no drug problem would have a substantial or severe alcohol problem.

**Table 4: Severity of substance abuse problem.**

<b>Measure</b>	<b>Severity</b>	<b>Pilot 1</b>	<b>Pilot 2</b>	<b>Pilot 3</b>	<b>Combined</b>	<b>National Comparison</b>
<b>Drug abuse problem (DAST)</b>	Substantial or severe	79%	80%	74%	77%	20%
	Moderate	4%	9%	12%	8%	14%
	Low	8%	5%	8%	7%	18%
	No problem	8%	7%	6%	7%	49%
<b>Alcohol problem (ADS)</b>	Substantial or severe	22%	25%	26%	24%	7%
	Moderate	4%	14%	10%	9%	9%
	Low	35%	34%	26%	31%	28%
	No problem	39%	27%	38%	35%	55%
<b>Alcohol and drugs</b>	Substantial or severe (either measure)	91%	91%	88%	90%	24%
	Substantial or severe (both measures)	11%	14%	12%	12%	3%
<b>Number of cases</b>		46	44	50	140	9,143

Results in Table 4 also indicate that 90% of the HISAP participants had a substantial or severe alcohol or drug problem; within the National comparison group, 24% had a substantial or severe problem. In addition, the results indicate that 12% of the HISAP group had a serious problem with both alcohol and drugs.

### *Criminal History*

Table 5 presents information on the criminal history of HISAP participants. Almost two-in-five (43%) of the program participants were serving sentences of less than 4 years, with the majority of the balance (35%) serving sentences of between 4 and 10 years. The characteristics of the participants appears to have changed over the course of the three pilots, with a steady reduction in the percentage of HISAP participants who were serving life sentences and sentences of more than 10 years.

**Table 5: Criminal history**

<b>Variable</b>	<b>Pilot 1</b>	<b>Pilot 2</b>	<b>Pilot 3</b>	<b>Combined</b>	<b>National Comparison</b>
<b>Current sentence length</b>					
Less than 4 years	41%	39%	48%	43%	32%
4 to 10 years	30%	39%	37%	35%	34%
More than 10 years	12%	8%	6%	9%	13%
Life sentence	17%	14%	10%	14%	22%
<b>Number of cases</b>	<b>58</b>	<b>59</b>	<b>52</b>	<b>169</b>	<b>12,330</b>
<b>Offence Severity</b>					
Serious current offences	79%	84%	70%	77%	84%
Previous Offences	98%	92%	96%	95%	89%
Previous Serious Offences	88%	68%	70%	75%	69%
<b>Number of cases</b>	<b>42</b>	<b>38</b>	<b>46</b>	<b>126</b>	<b>9,242</b>

During Pilot 1, 29% of the HISAP participants were serving sentences of 10 years or more, or life, but this declined to 16% in Pilot 3, a rate almost half of that observed in Pilot 1. Relative to the National comparison group, the HISAP participants were serving shorter sentences, and there were fewer serving life sentences. This latter finding occurs because offenders with long sentences, including life sentences, accumulate in the prison and distort the distribution of sentence lengths.

In terms of current and previous offences, approximately 77% of HISAP participants were serving sentences for serious offences (as defined in the Offender Intake Assessment) as compared to 84% for the National comparison group. Almost all of the HISAP participants had a previous criminal offence, before their current admission, and for 75% of the participants the previous offences were classified as serious. In relation to the National comparison group, these rates for previous offences are slightly higher.

Results in Table 6 indicate that the HISAP completers were more likely to be rated as high criminal history risk (57% vs. 46%) but were less likely to be rated as high need (74% vs. 79%). The Completers were also more likely to have a serious or substantial problem with drugs (78% vs. 73%), but there were minimal differences between the groups on level of alcohol problem, or the combination of alcohol and drug problems. While there were some differences between HISAP completers and Non-completers the differences were not large, or were balanced by other factors, suggesting that the Non-completers were not different from the HISAP completers in any meaningful way.

**Table 6: Comparison of HISAP completers and Non-completers.**

Variable		Completers	Non-completers
<b>Static factors (criminal history)</b>			
	High	57%	46%
	Moderate	40%	42%
	Low	3%	13%
<b>Dynamic factors (criminogenic needs)</b>			
	High	74%	79%
	Moderate	25%	13%
	Low	<1% (0.83%)	8%
<b>Drug abuse problem (DAST)</b>	Substantial or severe	78%	73%
<b>Alcohol problem (ADS)</b>	Substantial or severe	24%	24%
<b>Alcohol or drugs</b>	Substantial or severe (either measure)	90%	88%
<b>Alcohol and drugs</b>	Substantial or severe (both measures)	12%	12%

**Pre- Post-Program Assessment**

Ten measures were used to assess change in attitudes, beliefs and thinking from the pre- to the post-program period. These intermediate measures of program outcome help to answer the question of whether or not the program changed the expected attitudes and beliefs. If the attitudes and beliefs have not changed as a result of the program, then changes in post-program outcome would not be expected.

For all of the scales, a two (Pilot 1, Pilot 2) by two (Pre-, Post-test) repeated measures analysis of variance (ANOVA) was conducted to determine if there was an interaction between the two Pilots and across the Pre- Post-test. For all scales, except the Assertiveness Self Report Inventory, these ANOVAs indicated no differences between results for Pilots 1 and 2, and they indicated no interaction was present. Therefore, the means and standard deviations presented in Table 7 are for the main effect of Test (Pre- and Post-)

For the Assertiveness Self Report Inventory there was an interaction between Pilot (1 or 2) and Test (Pre- or Post-test), ( $F(1) = 7.4, p < .01$ ). For Pilot 1, the change in the mean score from Pre- to Post-test was 14.8 to 18.3 and the change for Pilot 2 was from 16.2 to 17.2. The means indicate that the interaction effect was caused by a difference in the magnitude of the change, but for both Pilot 1 and Pilot 2 it was positive. Therefore, in Table 7 the main effect means for Test are presented.

Prior to reviewing all of the measures it is useful to look at the results for the Paulhus Deception Scale that was included to determine if offenders were providing answers that either enhanced their outcome results, or they were trying to inappropriately present themselves in a positive light. Based on available norms, the observed results indicated both Self-deception enhancement and Impression management were within acceptable ranges. Therefore, it was concluded that in general, participants answered items in a valid manner.

Table 7 presents the means, standard deviations, change scores and  $F$  tests for the main effects from the 2 x 2 ANOVAs. All changes from Pre- to Post-test are in the expected direction and all are statistically reliable. The results indicate that at the conclusion of the program participants had changed their thinking, attitudes and beliefs and were therefore in a better position to reduce their dependence on alcohol and drugs.

**Table 7: Means, standard deviations (SD) and main effect ANOVA results for assessment measures**

<b>Assessment Instrument</b>	<b>Pre</b>	<b>Post</b>	<b>Change</b>	<b>F</b>
Assertiveness Self Report Inventory <sup>1</sup>	15.5 (4.2)	17.7 (4.05)	2.3 (4.4)	26.10 <sup>***</sup>
Beliefs About Substance Abuse	43.6 (20.0)	26.9 (10.2)	-16.7 (16.2)	101.72 <sup>***</sup>
Irrational Values Scale	28.3 (12.7)	21.2 (11.8)	-7.1 (10.4)	44.07 <sup>***</sup>
Craving Beliefs Questionnaire	57.9 (23.0)	39.6 (18.0)	-18.3 (21.3)	69.61 <sup>***</sup>
Drinking-Drugs Related Locus of Control Scale	60.0 (18.7)	38.7 (13.0)	-21.4 (17.2)	143.7 <sup>***</sup>
Rational Behaviour Inventory	16.6 (7.2)	11.0 (5.9)	-5.6 (6.4)	71.48 <sup>***</sup>
Personal Reaction Questionnaire: Impulsivity	18.3 (6.1)	14.0 (6.4)	-4.2 (5.6)	53.29 <sup>***</sup>
Personal Reaction Questionnaire: Self Esteem	6.9 (4.8)	3.5 (3.9)	-3.4 (4.1)	66.45 <sup>***</sup>
Paulhus Deception Scale: Self Deceptive Enhancement	2.8 (2.6)	4.4 (3.5)	1.6 (2.7)	34.16 <sup>***</sup>
Paulhus Deception Scale: Impression Management	4.2 (3.3)	5.7 (3.3)	1.4 (2.9)	22.12 <sup>***</sup>

Notes: 2 x 2 ANOVAs (Pilot 1, 2 by Pre- Post-test) with repeated measures were conducted for all scales. All interactions and main effects of Pilot were non-significant except for the Assertiveness Self Report Inventory for which detailed results are presented below. Therefore, main effects of Pre- and Post-tests only are presented in the table, along with the main effect F test and significance level.

<sup>1</sup>Means presented are for the main effect of Test (Pre- or Post-test). There was an interaction between Pilot (1 or 2) and Test (Pre- or Post-test) scores, ( $F(1)=7.4$ ,  $p<.01$ .). The observed change was greater in pilot 1 than in pilot 2. For Pilot 1, the change in the mean score from Pre- to Post-test was 14.8 to 18.3 and the change for Pilot 2 was from 16.2 to 17.2.

<sup>\*\*\*</sup>  $p<.0001$ .



To determine if offenders who started, but did not complete the program were different at the time the Pre-test measures were administered, the two groups were compared. Results of one-way ANOVAs are presented in Table 8. Overall, there were no differences between HISAP completers and Non-completers across all of the Pre-test measures.

**Table 8: Means, standard deviations (SD) and ANOVA results for pretest assessment measures**

<b>Assessment Instrument</b>	<b>Completers</b>	<b>Non-completers</b>	<b>F</b>
Assertiveness Self Report Inventory	15.5 (4.2)	16.4 (2.7)	0.97
Beliefs About Substance Use Inventory	43.6 (20.0)	45.6 (20.9)	0.18
Irrational Values Scale	28.3 (12.7)	29.4 (12.4)	0.13
Craving Beliefs Questionnaire	57.9 (23.0)	61.2 (26.1)	0.37
Drinking-Drugs Related Locus of Control Scale	60.1 (18.7)	62.5 (19.8)	0.31
Rational Behaviour Inventory	16.6 (7.2)	16.7 (6.7)	0.01
Personal Reaction Questionnaire: Impulsivity	18.3 (6.1)	18.6 (6.0)	0.05
Personal Reaction Questionnaire: Self Esteem	6.9 (4.8)	7.1 (3.9)	0.04
Paulhus Deception Scale: Self Deceptive Enhancement	2.9 (2.6)	2.4 (2.1)	0.48
Paulhus Deception Scale: Impression Management	4.2 (3.4)	3.9 (2.7)	0.22

## **Institutional Outcome**

### *Institutional misconducts*

Offenders participating in HISAP are likely to be involved in institutional incidents, or misconducts, related to drugs in the institution. If the program is having a positive impact on the behaviour of program participants then the rate of misconducts (number per offender) should be lower after the program, as compared to before the program. Non-completers provide a comparison group for changes in the rates. An additional comparison can be made between the percentage of offenders with at least one misconduct. Misconducts are relatively infrequent so data from Pilots 1 and 2 were combined in these analyses.

Results presented in Table 9 indicate that in the 12 months prior to HISAP program the rate of misconducts for HISAP completers was .48 and after the program it had dropped to .15, a significant decline. For program Non-completers, the rate actually increased from .43 to .87, although these rates are based on a relatively small number of cases.

The percentage of offenders with at least one misconduct in the HISAP completers group declined from 27% before the program to 12% after the program, again a meaningful decline. For the Non-completers the percentage actually increased from 26% to 35%.

The results suggest that the HISAP program had a positive impact on institutional behaviour with both a decline in the overall rate of misconducts and a decline in the percentage of program participants who had a least one misconduct.

**Table 9: Rate and type of institutional misconducts for HISAP completers and Non-completers.**

Type of Misconduct	HISAP completers		Non-Completers	
	Pre-program	Post-program	Pre-program	Post-program
<b>Rate of misconducts (number)</b>				
Contraband	.21 (20)	.07 (7)	.08 (2)	.60 (14)
Taking intoxicants	.17 (16)	.05 (5)	.04 (1)	.13 (3)
Failed/refused urinalysis	.10 (10)	.02 (2)	.30 (7)	.13 (3)
All misconducts	.48 (46)	.15 (14)	.43 (10)	.86 (20)
<b>Percentage of offenders with at least one misconducts (number)</b>				
Contraband	17% (16)	5% (5)	17% (4)	17% (4)
Taking intoxicants	7% (7)	4% (4)	0% (0)	8% (2)
Failed/refused urinalysis	2% (2)	2% (2)	8% (2)	8% (2)
All misconducts	27% (25)	12% (11)	26% (6)	35% (8)

We can also look at the offenders who did not complete the program, notwithstanding their small number. Drug-related institutional charges from one year before to one year after with these individuals went from a total of 10,

increasing to a total of 20. Individuals (non-completers) with at least one drug-related charge, for the year before and after the program, went from six to eight.

### *Urinalysis*

As noted previously, approximately 5% of offenders in institutions are tested through random urinalysis each month for the presence of drugs. The selection is done with replacement so there is a possibility that an offender will be tested more than once over a year. To test the effectiveness of the HISAP program for reducing drug use in prison, the urinalysis data were reviewed to identify tests requested of offenders in the program, 12 months before the program, during the program and 12 months after the program. Table 10 presents the rate of positives, refusals, and positives and refusals combined.

In total, 91 samples for urinalysis were requested across the three time periods from participants who completed the program. Non-completers also were requested to provide urine samples, but the numbers were quite small and analysis for these cases are not presented. To establish the context for the HISAP participants, data were also extracted on all random testing during the same period of time the HISAP pilots were operating.

Results of the urinalysis vary from Pilot 1 to Pilot 2, and a final decision on how effective the HISAP was in affecting urinalysis results will need to await follow-up from other pilots. In Pilot 1, the rate of positive tests was higher in the pre-program period than that observed nationally (20% vs. 12%), but unfortunately, the rate increased to 35% in post-program period, 3 times higher than that observed in the national sample. Refusal followed a similar pattern, and when refusals and positive were combined, the results indicated 59% of program participants who were requested to provide a urine sample, either produced a positive test, or refused to provide a sample.

Results for Pilot 2 were different, and more consistent with the expectation that the program would reduce drug use during the period of incarceration. For Pilot

2, positive tests declined from 17% in the pre-program period to 10% in the post-program period, while refusal remained relatively constant (11% to 14%) across the three time periods. When refusals and positive test results were combined, there remained a small reduction in the rate, from pre-program to post-program (28% to 24%). Relative to the national comparison group, the rate of positive tests was higher in the pre-program period (17% vs. 12%) and fell to a level similar to the national rate in the post-program period.

The decline in the combined (positives and refusals) rate for Pilot 2 to the level of the national comparison group is promising given that the program group is part of the most highly addicted group of offenders in the institutions. Also interesting in Pilot 2 is the slightly higher rate of positive test recorded during the program period. Further analysis in future programs will need to determine if this is a pattern, or simply the result of unique characteristics of this sample. In addition, analyses may need to consider the types of drugs identified, such as THC, but this was not possible with the small sample size.

**Table 10: Percentage of positive urinalysis tests<sup>1</sup> before, during and after the program.**

<b>Time Period</b>	<b>Pilot 1</b>	<b>Pilot 2</b>	<b>Combined</b>	<b>National Comparison</b>
<b>Positive tests</b>				
12 months prior to program	20% (10) <sup>2</sup>	17% (29)	18% (39)	12% (802)
During program	0% (5)	22% (9)	14% (14)	12% (338)
12 months after program	35% (17)	10% (21)	21% (38)	11% (830)
<b>Refusals</b>				
12 months prior to program	20% (10)	10% (29)	13% (39)	13% (879)
During program	20% (5)	11% (9)	14% (14)	14% (389)
12 months after program	24% (17)	14% (21)	18% (38)	13% (1025)
<b>Total of positives and refusals</b>				
12 months prior to program	40% (10)	28% (29)	31% (39)	26% (1678)
During program	20% (5)	33% (9)	29% (14)	26% (727)
12 months after program	59% (17)	24% (21)	39% (38)	24% (1854)

<sup>1</sup> Based on number of tests, not individuals; one individual may be tested more than once. Only offenders who completed the program are included in the results for the Pilots and Combined groups.

<sup>2</sup> Numbers in brackets are the total number of samples and were used as the denominator in calculating the percentages.

## **Release and Readmission Outcome**

Of the 84 offenders who completed HISAP in Pilots 1 and 2, 55 had been released up to June, 2003. Only five offenders in Pilot 3 had been released by this date, and they had all been in the community less than four months. Therefore, they have been excluded from the following analyses.

### *Type of release*

Of the HISAP participants released to the community, 60% received a discretionary release and the balance was released only at their statutory release date. This compares to 31% of the Matched sample group, or half, who received a discretionary release. Detailed results are presented in Table 11.

Discretionary releases always occur earlier than statutory releases and suggest that the HISAP participants were viewed by the National Parole Board as lower risk for reoffending.

The percentage of offenders released in the HISAP and Matched groups varies from about half for the HISAP group to three-quarters for the Match group. This occurs because the Matched group were identified earlier in the study period and therefore had more time available for release. For the study, release for the HISAP group was only counted if it occurred after the program was completed, and the two pilots occurred over a period of about two years.

Offenders granted a discretionary release leave the prison setting for the community. Maintaining an offender in the community is substantially less costly than maintaining them in an institution. Recent estimates indicate that it costs about \$66,381 per year (\$182/day) to manage an offender in a prison compared with \$16,800 per year (\$46/day) in the community (*Basic Facts About Federal Corrections, 2000-2001*)

If an offender is released earlier from prison as a result of participation in a program, there is a saving to the correctional system. To determine the potential

size of this saving, we calculated the number of days before each offenders statutory release date that they were released on a discretionary release. If the program had an effect on release, then we would expect that the number of days of early release would be larger for the HISAP group than the Matched sample.

**Table 11: Type of release for HISAP participants and Matched sample.**

<b>Measure</b>	<b>HISAP participants<sup>1</sup></b>	<b>Matched sample</b>	
Percent released	47%	75%	
<b>Type of release</b>			
Discretionary <sup>2</sup>	60%	30%	$\chi^2$ (N=121) =10.30
Statutory <sup>2</sup>	40%	70%	Phi = 0.29
Number of releases <sup>2</sup>	52	69	121
<b>Discretionary releases</b>			
Total days released before statutory release	16,817	7,718	
Average release days before statutory release (offenders with discretionary release)	543	366	
Average release days before statutory release (all released offenders)	323	112	

<sup>1</sup> Pilots 1 and 2 only, as only 5 HISAP participants had been released following Pilot 3, and these had been out for less than four months.

<sup>2</sup>Three cases were dropped for these analyses because they were serving life sentences and therefore only eligible for discretionary release. No cases in the matched sample were serving life sentences.

Results in Table 11 indicate that HISAP participants granted a discretionary release, were released, on average, 543 days before their statutory release date. Offenders in the Matched sample were released, on average, 366 days before their statutory release date. The difference between these two periods, 177



days, represents a potential cost savings resulting from participation in the program. These savings will be referred to as Release-custody days saved

To estimate the total savings, for the program, not just for those who received discretionary release, the total days saved were divided by the total number of releases. This calculation results in an average of 323 Release-custody days saved per HISAP participant and 112 Release-custody days saved for each offender in the Matched group. The difference, 211 days, is the potential saving from early release.

In dollars, the savings would be the institutional cost saved minus the cost of community supervision:

$$\text{Costs saved} = (211 \text{ days} * \$182) - (211 \text{ days} * \$46) = \$28,696$$

The estimated costs saving, per HISAP participant who completed the program would be \$28,696. If the program were delivered successfully to 200 participants per year, the cost savings resulting from Release-custody days would be almost \$6 million (\$5,739,200).

Some caution in interpreting this result is needed. The total number of days saved is skewed by a few cases that contributed a large number of days. The median days saved presents a different picture, with the HISAP participants having a median number of Release custody-days saved of 318 and the Matched group having a median number of 368 days. However, given that the program is directed at offenders with the most serious problems, the offenders contributing the largest reduction in Release-custody days are the ones targeted by the program, the problem cases that remain in custody longer than is needed because their substance abuse problem cannot be addressed.

### *Return to custody*

Safely releasing offenders who participated in the HISAP earlier will not be of much benefit, if they are returned to prison quickly. Table 12 presents readmission results for the HISAP participants and the Matched sample. Overall, 42% of the HISAP participants released, were readmitted to prison while 49% of the Matched sample were readmitted. The Matched sample had a longer follow-up period so the overall rate of return is not a fair comparison and Table 13 provides a comparison for a fixed 6 month follow-up period.

Table 12 also presents information on the types of readmission. The Matched sample was more likely to be readmitted for a new offence (9% vs. 17%) than the HISAP participants.

**Table 12: Readmission to custody after release.**

<b>Type of readmission</b>	<b>HISAP participants</b>	<b>Matched sample</b>
Readmitted (any reasons)	42%	49%
Revocation without offence	29%	28%
Revocation with offence	9%	17%
Revocation with outstanding charges	4%	4%
Number of released	55	69

The length of time an offender is in the community can affect the rate of return custody. While the results in Table 12 provide an overall rate of readmission, a more appropriate way of looking at the data is to follow offenders for a fixed period of time. Due to the small size of the group and the short follow-up period available it was necessary to fix the follow-up period at six months; future

analyses should extend the follow-up period to 12 and 24 months. Results of the six-month follow-up are presented in Table 13.

For the fixed follow-up period, only 26% of the HISAP participants were readmitted compared to 32% of the Matched group. There was a slight difference between the two groups in terms of readmission without an offence (20% vs. 23%), but a larger difference, although the numbers are small, between the HISAP participants and the Matched sample group for revocation with a new offence (4% vs. 8%) (See Table 13).

Another measure of program effectiveness is how long offenders were able to remain in the community after their release. Every additional day in the community represents a cost saving to the Service as community supervision costs less than time in the institution. The HISAP participants and the Matched sample have different follow-up periods, so it was decided to use the 6 month fixed follow-up period to calculate days in the community.

**Table 13: Readmission to custody during the first six months after release.**

<b>Type of readmission</b>	<b>HISAP participants</b>	<b>Matched sample</b>
Readmitted (any reasons)	26% (n = 13)	32% (n = 21)
Revocation without offence	20%	23%
Revocation with offence	4%	8%
Revocation with outstanding charges	2%	2%
Number released	50	66

Days in the community was calculated by taking the readmission date, or the date 6 months after the release for those who were not readmitted within 6 months, and subtracting the release date. The average number of days in the

community was then calculated by dividing the totals days in the community by the number of offenders released in each group. The group that was more successful at remaining in the community would have a greatest number of days in the community.

**Table 14: Days in the community for six month follow-up.**

<b>Measure</b>	<b>HISAP participants</b>	<b>Matched sample</b>
Number of offenders released with potential for 6 months follow-up	50	66
Total days in the community for the group	8,224	10,242
Average days in the community for the group	164	155

The results in Table 14 indicate that, on average, the HISAP participants spent 164 days in the community (out of a maximum of 181 days, or six months) while the Matched sample spent 155 days in the community. The difference between the two groups, 9 days, is the potential days of incarceration saved that could be realized per program participant.

To estimate the potential cost savings the formula applied above for Reduced custody days can be applied:

$$\text{Costs saved} = (9 \text{ days} * \$182) - (9 \text{ days} * \$46) = \$1,224$$

Participation in the program produced a cost saving of \$1,224 per program participant. If there were 200 program participants per year, the total cost savings would be \$1,224 \*200, \$244,800.

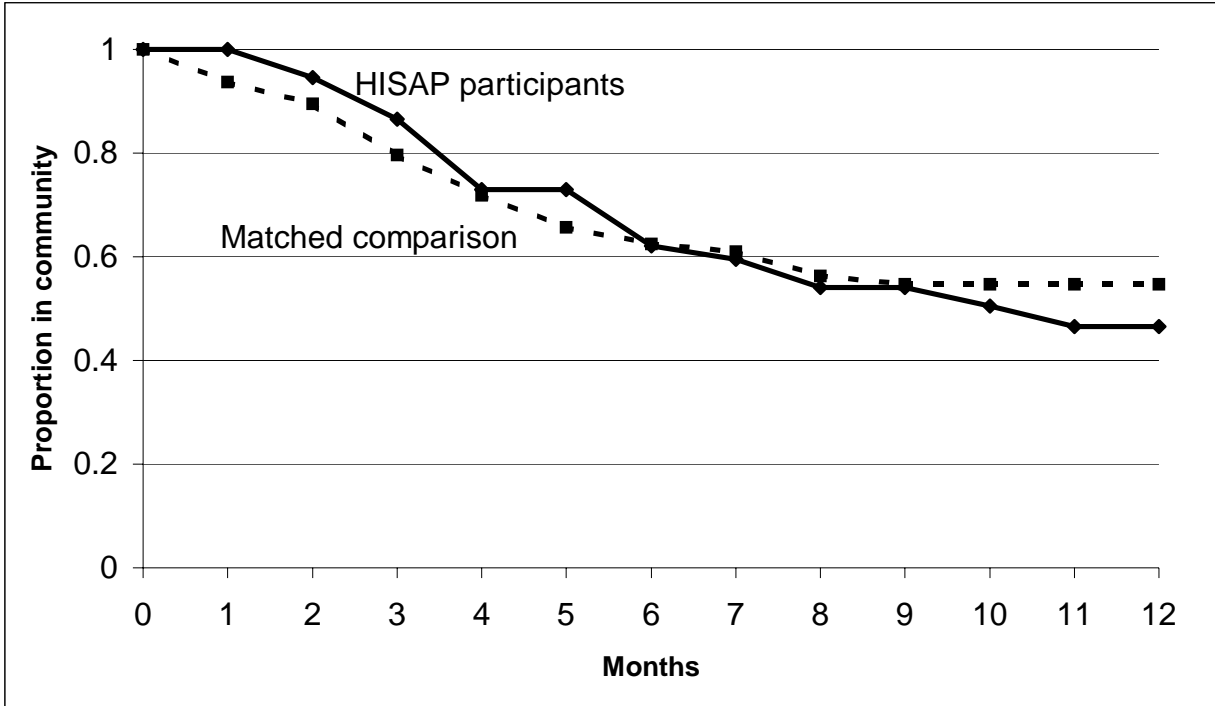
### *Survival analysis*

Survival analysis is a statistical procedure that provides a more graphic view of when offenders return to custody. With survival analysis, the number of cases

available at each point in time (monthly in this study) is used to calculate the proportion of people remaining in the community.

Survival analysis has benefits over other types of analysis in that it makes the most effective use of all of the data available. In addition, it is possible to see changes in the rate at which offenders return to custody and compare these changes in rates across the HISAP group and the Matched sample.

Figure 1 presents the survival analysis curve. Results presented in the figure show that before six months after release, the most difficult period for offenders, the HISAP participants are less likely to be returned to custody. However, after six months the curves converge, showing no difference, until 10 months, at which point the Matched group has fewer offenders returned to custody. However, the number of cases being followed after 8 months becomes quite small, only 20 for the HISAP group and therefore the results start to become unstable. More definitive results may need to await the addition of more cases in the follow-up period.



**Figure 1: Survival curve for readmissions comparing HISAP participants and Matched comparison.**

## **Discussion**

### **Overall assessment of program**

Overall, the HISAP appears to have had a positive impact on offenders. The Pre- Post-program measures showed statistically reliable changes in the positive direction. There was a decline in the number of drug related misconducts from the Pre- to the Post-program period. Discretionary releases were more likely for program participants, and the number of day of custody saved as a result of discretionary release were significant. Overall, the readmission rate was lower for the HISAP participants, when the follow-up period was controlled for. Offenders in the Matched comparison group were more likely to have their conditional release revoked as a result of an offence. Unfortunately, the urinalysis results were inconclusive, but suggested the program may not be addressing the challenge of continued drug use in prison.

### **Evaluation Questions**

The introduction provided a set of questions to be answered by the research. Each of these is addressed below.

1. Were the most severely addicted offenders included in the pilots? That is, were the program participants identified as being at a substantial or severe level of substance abuse?

Ninety percent of the HISAP participants were identified as being substantially or severely addicted to either drugs or alcohol. Only about 24% of the offender population meet this criteria, so clearly the most severely addicted offenders are being addressed in this program.

2. Did the program participants differ in meaningful ways from the general population of offenders?

HISAP participants were similar in age to offender population and were not different in terms of marital status. They were however, much more likely to be Caucasian and less likely to be Aboriginal or from another racial group. Given that 8% of the participants were Aboriginal, and that Aboriginal offenders account for 17% of the offender population, additional effort may be needed to attract Aboriginal offenders to the program.

HISAP participants were not more likely to be rated as high on static factors than the offender population, but they were more likely to be rated as high in terms of dynamic factors. In the area of dynamic factors, there were some differences between the HISAP group and the offender population, but they were not substantial differences, except in the area of identified need for substance abuse.

3. Did the program change attitudes and beliefs about substance abuse and did it increase knowledge and skills as measured before and after the program?

All of the intermediate change measures indicated a reliable change in a positive direction. After the program there was a reduction in the inappropriate beliefs about substance abuse, irrational values, inappropriate beliefs about cravings, irrational behaviours, and impulsivity. They also showed improvements in self-esteem, assertiveness and internal locus of control.

4. Did the program affect institutional behaviour?

HISAP participants had lower levels of misconducts after the program than before indicating that their behaviour at the institution had changed favourably. However, the urinalysis results did not show a clear reduction from before to after the program.

5. Did the program increase the likelihood of being granted a discretionary release (parole or day parole)?

Discretionary release was more likely to be granted to HISAP participants (60% vs. 30%) compared to a matched sample of offenders. The impact of the



increased discretionary release was a substantial, a saving of 211 Release-custody days per offender who completed the program, relative to the matched sample.

6. Did program participants remain in the community longer than non-participants?

The readmission rate was higher the Matched sample than the HISAP participants, and the Matched sample group was slightly more likely to readmitted for a new offence.

### **Potential Cost Savings**

Calculations were presented that suggest that the earlier release (discretionary vs. statutory release) of HISAP participants as compared to the matched sample, results in a reduction of 211 days in custody. This reduction could produce a gross saving of \$28,696 per program participants. This result may be inflated by a small number of cases with much earlier releases, but a longer follow-up period is needed to address the problem. Similar calculations for Release-custody days saved by HISAP participants remaining longer in the community indicate that the program may have resulted in an average saving of 9 days per offender, or \$1,224.

These are gross savings taking account only the overall costs of keeping an offender in an institution as compared to in the community. Reducing the number of days out of custody does not translate so cleanly into a saving since the prison will not realize a saving with the loss of one or two inmates. However, when combined with other interventions the total effect of program participation could clearly reduce the need for additional bed capacity within institutions.

### **Study limitations**

The study looked at the first participants of a newly developed program. These participants and the program facilitators were all well aware of the potential

impact of their participation in the program. Therefore, it is possible that results may be inflated slightly. However, on the other hand, the program is still undergoing refinement and if those refinements produce a more effective program then results in the future could be better.

The greatest limitation in the study is the period of follow-up available. Many of the program participants had not been released at the time the study was conducted and the follow-up period was limited to 6 months. It is well known that the majority of failures occur within the first six months of release, and the study results suggest the Program was effective at reducing readmissions during this period, but a longer and more detailed follow-up is advisable.

Some caution is needed in interpreting the days and costs saved by the early discretionary release of HISAP participants. These results have been skewed by a small number of extreme cases. On the other hand, these cases are some of the ones the program is particularly targeted at. Additional development and a longer follow-up is needed to address this problem.

### **Future research**

The next study in this evaluation will need to be to look at a longer follow-up period. With the increased number of cases that this will provide it will be possible to look at how the various demographic factors and criminal history factors affected the results. In addition, it will be possible to determine if the program was most effective with the alcohol or drug addicted offenders, and if the severity of the addiction problem was related to outcome.

The intermediate program measures have not been linked to correctional outcomes so additional analyses to see how they related to readmission and recidivism will help in identifying whether these are useful measures in correctional contexts. In addition, it will be informative to know how the changes on these measures, from pre to post, were related to both institutional and community outcome.

It is anticipated that as a result of consultations with staff and participants, and the evaluation the current program manual will be revised. Future evaluations will be based on the new version of the program. In addition, work is underway to further develop the assessment protocol and this will contribute to increased knowledge of program outcomes.

Additional analyses are needed on the cost savings associated with program participation. In particular, information on the cost of operating the program is needed so a ratio of costs to savings can be calculated. There is also a need to refine the measure of cost savings per custody-day saved. This will probably require some discounting of the raw savings presented here.

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## **Appendices**

## Appendix A

### Appendix A: Completion rates across institutions and pilots.

Institution	Pilot 1	Pilot 2	Pilot 3	Combined
Springhill	90% (10) <sup>1</sup>	70% (10) <sup>1</sup>	100% (10) <sup>1</sup>	86.67% (30) <sup>1</sup>
Centre Fédérale de Formation	100% (8) <sup>1</sup>	77.78% (9) <sup>1</sup>	90% (10) <sup>1</sup>	88.89% (27) <sup>1</sup>
Établissement Leclerc	70% (10) <sup>1</sup>	90% (10) <sup>1</sup>	90% (10) <sup>1</sup>	83.33% (30) <sup>1</sup>
Warkworth	60% (10) <sup>1</sup>	77.78% (9) <sup>1</sup>	On-going	68.42% (19) <sup>1</sup>
Drumheller	90% (10) <sup>1</sup>	100% (10) <sup>1</sup>	84.62% (13) <sup>1</sup>	90.91% (33) <sup>1</sup>
Matsqui	70% (10) <sup>1</sup>	80% (10) <sup>1</sup>	80% (10) <sup>1</sup>	76.67% (30) <sup>1</sup>

<sup>1</sup> Number of participants who started the program.