

————— **Research Report** —————

**Offender Incentives and Behavioural  
Management Strategies**

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## **Introductory Statement**

This document contains a two-part report on Offender Incentives and Behavioural Management Strategies. Part 1 contains a literature review examining the effectiveness of incentive systems in managing offender behaviour. This review sets the stage for Part 2 which contains a discussion of measurement, policy development, and implementation issues. The reports are presented in the format they were delivered to the Correctional Service of Canada. The authors retain full responsibility for the format, style and content of the report.



Offender Incentives and Behavioural Management Strategies

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## Abstract

This review juxtaposes several themes across more than three decades in an effort to highlight consensus in the published literature regarding factors that might influence offender behaviour. To reduce the occurrence of misconducts and violence in prisons, various strategies have been explored. Contingency management programs in the form of individual and systemic incentives are the focus of this discussion, with examples drawn from both correctional and non-correctional settings. It is clear that the development of behavioural management strategies is complex in that only a minority of offenders commit serious misconducts and that issues of fairness are often compromised when broad-based discipline strategies are attempted. Overall, the results regarding the effectiveness of incentive systems to manage offender behaviour is mixed. There is increasing consensus regarding what not to do but far less consensus regarding viable next steps.

This review sets the stage for discussions about effectiveness; policy development; policy implementation; and context. Liebling's (2008) paper is perhaps the most ambitious and salient among all published work in that it provides a meaningful context to appreciate the purpose and challenges of implementing a standardized incentive model in a correctional setting. Much of her comments mirror discussions that have surrounded this topic in Canada and at Correctional Service of Canada for the past decade. From that perspective, it is a useful start point for the subsequent aspects of this work (consultation, identification of offender-centric incentives, measurement of offender compliance, etc.).



## Table of Contents

Introduction.....	1
Literature Search Strategies .....	2
Institutional Misconducts.....	3
Pharmacological Strategies.....	7
Use of Incentive Schemes in Correctional Settings.....	9
Contingency Management in Drug and Alcohol Treatment.....	14
Contingency Management in Mentally Disordered and Low Functioning Populations.....	22
Individual Differences in Sensitivity to Incentives.....	23
Role of the Date of Publication.....	26
Conclusion .....	26
References.....	28



## Offender Incentives and Behavioural Management Strategies

Similar to the patterns of criminal behaviour in the community, involvement in institutional misconduct is not evenly distributed among inmates. Instead, a small segment of the inmate population is disproportionately represented in official records of prison rule violations (Flanagan, 1983). The characteristics of offenders prone to involvement in institutional misconducts have been investigated extensively. Some of the characteristics that have been considered include age, race, antisocial attitudes and behaviour, criminal history, prior institutional behaviour, and gang affiliation. The environment may also play a role above and beyond personal characteristics in explaining rule violations and acts of violence. The occurrence of institutional misconducts and violence in prisons can be attributed in part to the impulsivity of a large proportion of the inmate population. Pharmacological strategies have been implemented as a solution to control the impulsivity of inmates, and consequently reduce violence in correctional institutions. The use of drugs to control and change behaviour has been widely criticized (e.g., Blumenthal, 2006; Wong, 2006; Wyatt & Midkiff, 2006). An alternative approach to modifying inmate behaviour is providing incentives to offenders, through the use of contingency management programs.

The purpose of this literature review is to present evidence for and against the use of incentive schemes in correctional settings. An effort was made for a fairly inclusive review in order to determine if there existed successful behavioural management strategies both within and outside the field of corrections. First, the context for implementing contingency management programs will be presented through a discussion of the issues of institutional misconducts and the use of pharmacological strategies in institutions. As well, this literature describes broad approaches to reducing misconducts that essentially fall into punishment versus incentive and

treatment efforts. The latter is perhaps best exemplified in non-correctional literature (e.g., addictions, mental health) and reflects both individual incentives (i.e., tokens, vouchers, money) and systemic incentives (i.e., contingency management, levels with gradations of privileges). Presently, the results regarding the effectiveness of incentive systems to manage offender behaviour is mixed at best. Similar to offender programming, there is increasing consensus regarding what not to do but far less consensus regarding viable next steps. Lastly, the role of individual differences in the sensitivity to reinforcement will be discussed as a factor to be considered in implementation and practice.

#### Literature Search Strategies

Using keyword searches, a review of the literature regarding the use of incentives to manage and modify behaviour was undertaken. Two electronic databases were searched: PsycINFO and the Educational Resources Information Centre (ERIC). The reference sections of the articles chosen to be included in the review were examined to search for any other relevant studies that had not been identified in the keyword searches. Incentive programs and behavioural management strategies were searched in the areas of corrections and other clinical populations (e.g., substance abusers, mentally disordered, and low functioning individuals). The positive parenting literature was searched, although the research located was not directly relevant to incentives and behavioural management strategies. Research regarding institutional misconducts was examined at length to provide a context underlying incentive approaches to managing offender behaviour. Pharmacological strategies to control impulsivity and violence were also briefly reviewed.

### Institutional Misconducts

Similar to the patterns of criminal behaviour in the community, involvement in institutional misconduct is not normally distributed among inmates. Instead, a small segment of the inmate population is disproportionately represented in official records of rule violations (Flanagan, 1983). The frequency of institutional misconducts decreases as the seriousness increases, and many fewer inmates are involved in serious forms of violent misconduct (Cunningham & Sorensen, 2007a). In a review of over 24,000 inmates in Florida in 2003, while almost half incurred some form of disciplinary report, only 14.7% were sanctioned for misconduct representing violence potential and 4.5% for an actual assault (Cunningham & Sorensen, 2007b). The notion of a “new” offender has been proposed to explain serious misconducts, one that is more aggressive and difficult to manage (Innes, 1997). This offender is defined as younger, generally African-American, urban, and before coming to prison was involved in gangs that used or sold drugs and employed violence.

In the past two decades, the characteristics of offenders typically involved in institutional misconducts have been investigated. One of the consistent predictors of various types of misconducts is age. Age has been found to be inversely related to rule violations, misconduct, and violence in prisons (Berk, Kriegler, & Baek, 2006; Chapman, 1981; Cunningham & Sorensen, 2007a; Cunningham & Sorensen, 2007b; Edens, Poythress, Lilienfeld, Patrick, & Test, 2008; Flanagan, 1983; Gendreau, Goggin, & Law, 1997; Gillespie, 2003; Griffin & Hepburn, 2006; Innes, 1997; Jiang, 2005; Jiang, Fisher-Giorlando, & Mo, 2005; Steiner & Wooldredge, 2008). Race has also been examined as a predictor of institutional misconduct, with mixed findings. Innes (1997) examined whether the prevalence of the “new” offender in prisons explained the increasing number of misconducts in the U.S. This model of a new type offender,

as young and African American, worked best in predicting less serious misconducts and rule violations but did poorly in predicting the most serious forms of violence. Jiang and Fisher-Giorlando (2002) found that neither race nor age was related to violent and nonviolent incidents against staff or other inmates. However, race has been found to significantly predict misconducts in a number of recent empirical studies (Berg & DeLesli, 2006; Jiang, 2005; Jiang et al., 2005, Steiner & Wooldredge, 2008).

In a meta-analysis of 39 studies that generated 695 correlations with prison misconducts, Gendreau et al. (1997) found that antisocial attitudes and behaviour were among the strongest predictors of prison misconducts, in addition to age and criminal history. These antisocial attitudes and behaviour included substance abuse, companions, prison adjustment, and interpersonal conflict. Criminal history has been found to be related to misconduct in a number of other empirical studies (Berk et al., 2006; Chapman, 1981; Cunningham & Sorensen, 2007a; Cunningham & Sorensen, 2007b; Innes, 1997; Jiang, 2005). Misconducts are significantly more likely to occur among inmates with a history of violence (Cunningham & Sorensen, 2007b; Griffin & Hepburn, 2006) and prior incarcerations (Cunningham & Sorensen, 2007a; Cunningham & Sorensen, 2007b; Griffin & Hepburn, 2006; Jiang, 2005, Steiner & Wooldredge, 2008). Related to criminal history are characteristics of the current offence that have been linked to misconduct. For example, Flanagan (1983) found that high-rate disciplinary offenders were more likely to have committed an offence other than homicide. Jiang and Fisher-Giorlando (2002) discovered that inmates convicted of a drug offence had a higher number of violent incidents than those not convicted of drug offences. A history of drug use is also correlated with both violent and non-violent misconduct (Flanagan, 1983; Jiang & Fisher-Giorlando, 2002; Jiang, 2005, Jiang et al., 2005; Steiner & Woolredge, 2008). The role of sentence length in



explaining misconducts has been mixed. While Berk et al. (2006) has found that inmates sentenced to longer prison terms are more likely to engage in misconducts, Cunningham and Sorensen (2007b) found that longer sentences were related to lower rates of infractions. The time served influences misconduct due to being incarcerated for a briefer period allows less time to get into trouble, although this relationship is not linear (Innes, 1997).

Social support can enhance an inmate's moral commitment to others and to legitimate social institutions, strengthen family ties, situate them in prison, and increase self-control (Jiang et al., 2005). These effects are thought to produce a lower likelihood of violating prison rules. Jiang et al. tested this relationship, discovering that social support at both the inmate and prison levels were negatively related to overall rule violations and particularly violent and drug/property related violations. Misconducts are more likely to occur among inmates that have never been married (Chapman, 1981). Contrary to prior research, Jiang and Fisher-Giorlando (2002) found that married inmates and those with more children had a higher number of violent infractions. Less job stability prior to incarceration is also a predictor of institutional misconducts (Chapman, 1981).

Gang affiliation, both within and outside prison, has shown some association with institutional misconduct. Inmates with a history of gang activity prior to incarceration have been found to engage in more rule violations than those with no history (Berk et al., 2006; Gillespie, 2003). In particular, gang affiliation has been found to have an effect on violent misconduct during the early years of incarceration (Griffin & Hepburn, 2006). Gaes, Wallace, Gilman, Klein-Saffran, and Suppa (2002) examined the effects of prison gang affiliation on prison misconduct. Controlling for violent risk, previous history of violence and other background factors, membership was found to increase violent and almost all other forms of misconduct,

including rule infractions and actual crimes. Prison gang affiliation as a predictor of violent misconduct has been replicated by Cunningham and Sorensen (2007b). Gaes and colleagues also investigated the impact of gang embeddedness, which distinguishes whether someone is a core or more peripheral member of a gang. Core members were more likely than peripheral members, and peripheral members were more likely than unaffiliated peers to commit violent misconducts.

The environment or institutional factors can also play a role in rule violations and violence committed by inmates. In the meta-analysis conducted by Gendreau and colleagues (1997), institutional factors were among the strongest predictors of misconducts. Facility-level predictors of misconduct include the proportion of inmates incarcerated for violence, proportion of inmates that use drugs prior to incarceration, proportion of inmates participating in programs, and a maximum security level of the facility (Steiner & Wooldredge, 2008). Misconducts can be predicted from security level, with a lower likelihood of violence and incidents against staff in lower security levels (Jiang & Fisher-Giorlando, 2002). However, Innes (1997) suggests the relationship between security level and misconduct is ambiguous since higher security levels have closer supervision but also a tendency to ignore minor infractions (e.g., insubordination). Camp and Gaes (2005) tested whether different security levels of institutions makes inmates more criminal while incarcerated. A sample of 561 inmates with the same level of risk to commit institutional misconducts were sent to either the lowest security level or one step down from the highest security level prisons in California. The inmates were equally likely to commit misconducts regardless of their security level assignment, not supporting the conclusion that prisons are criminogenic or that there is a relationship between security level and misconducts. In sum, Gillespie (2003) suggests that although both individual characteristics of inmates and institutional qualities affect prisonization and misconduct, institutional factors are weak

predictors of behaviour. It would seem that meta-analytic reviews support the importance of institutional factors (i.e., security level) but that more specific investigations question this conclusion.

In order to reduce misconduct behaviour, three general strategies have been proposed (French & Gendreau, 2006). First, “get tough” advocates promote a return to “no frills” prisons with fewer services, as well as a greater use of solitary confinement and lash and chain gangs. Second, prison management and situational control strategies include a broad group of strategies (i.e., crowding, prison design, staff-prison ratios) which focus on minimizing opportunities for antisocial behaviour. Lastly, the provision of treatment programs could produce roughly equivalent reductions in prison misconducts (e.g., 20% to 30%) as they do in reducing recidivism. French and Gendreau conducted a meta-analysis of 68 studies to assess the effectiveness of correctional treatment for reducing misconducts. Behavioural treatment programs produced the strongest effects ( $r = .26$ ), while the number of criminogenic needs targeted and program therapeutic integrity were important moderators.

#### Pharmacological Strategies

Institutional misconducts and violence in prisons can be attributed in part to the impulsivity of offenders. Edens et al. (2008) investigated whether institutional misconducts, aggressive infractions, and nonaggressive infractions among male inmates could be predicted using the Psychopathic Personality Inventory (PPI). The impulsive antisociality scale of the PPI, consisting of Machiavellian egocentricity, impulsive nonconformity, carefree nonplanfulness and blame externalization, was found to predict all three outcomes. This study highlights the role of impulsivity in rule violations and violence in prisons. Impulsivity, anger and denial of problems

have been cited as the clinical problems most frequently observed in mentally disordered offenders (Quinsey, Harris, Rice, & Cormier, 2006).

Pharmacological strategies have been proposed as one solution to control the impulsivity of inmates, and consequently reduce violence in prisons. The primary goal of drug treatments is to gain immediate control of the aggressor's behaviour to prevent or stop injury, destruction, and/or disruption (Rice, Harris, Varney, & Quinsey, 1989). For instance, Wilcox (1994) tested the effects of divalproex sodium (an anti-convulsant) on 35 individuals with a variety of psychiatric illnesses. The medication was found to reduce agitation, particularly in patients with bipolar illness or borderline personality disorder. Lawson and Nanos (2006) examined the effects of divalproex to treat violent and disruptive behaviour in a correctional setting. The anti-convulsant reduced behaviours directed against self in 17 jail inmates, but did not significantly reduce disruptive behaviours toward others.

Since the 1970's, there has been a declining interest in behavioural programs, as demonstrated by a drop in the number of publications on behavioural treatments (Wong, 2006). Psychotropic medications have become the treatment of choice for mental and behavioural disorders (Wyatt & Midkiff, 2006). Quinsey et al. (2006) suggest that even the occasional occurrence of aggression toward self or others within an institution is likely to mean that an individual is not considered for any intervention other than pharmacotherapy.

Blumenthal (2006) argues that billions of dollars are spent annually to control and change behaviour with drugs, as a result of claims by drug companies that the only scientific precursor to behaviour change is drugs. Many of these behaviours "could otherwise be controlled through education and training with the proper use of behaviour management and applied behaviour principles" (p.197). Rice et al. (1989) states that there is no empirical evidence that utilizing

drugs for immediate behavioural control is an effective long-term strategy to reducing the future occurrence of aggression. Further, research in support of the biological causation is weaker than expected, and claims of drug effectiveness are overstated in some cases (Wyatt & Midkiff, 2006). Blumenthal maintains that teaching individuals to take ownership and control of their lives is imperative, particularly in mental health settings which may rely on pharmaceutical strategies to change behaviour. Wong (2006) suggests that stimulus control techniques in the form of shaping and token economies can be used to effectively treat problem behaviour. Corrigan, Yudofsky, and Silver (2008) recommend making intervention decisions based on three questions: 1) Is the patient currently assaultive? 2) What are the biological precipitants of aggression? and 3) What are the environmental precipitants? It can then be determined if biological strategies (e.g., antipsychotics, sedatives, anticonvulsants) and/or behavioural interventions (e.g., token economy, assertiveness training, self-controlled time out) are most appropriate. There is abundant evidence that interventions aimed at altering the social environment, such as token economies, can have a positive effect on behaviour change (Quinsey et al., 2006).

#### Use of Incentive Schemes in Correctional Settings

The fundamental objective of a contingency management intervention is to alter an individual's behaviour through the systematic application of reinforcement or punishment, contingent upon the performance of a desired behaviour (Burdon, Roll, Prendergast, & Rawson, 2001). A reinforcement event is delivered contingent upon the performance of a specific behaviour, with the intention of increasing the frequency of that behaviour. Contingency management systems include token economy, contingency contracting, shaping, positive reinforcement, and response cost. Positive reinforcement of prosocial and positive behaviour

(e.g., punctuality, participation, completion of program tasks) is rarely used in correctional settings (Burdon, Prendergast, Eisen, & Messina, 2003). Positive reinforcement is the delivery of some form of reward upon the performance of a desired behaviour which results in an increased frequency of that behaviour. Instead, most treatment programs tend to dispense disciplinary actions against inmates who violate institutional or program rules.

The Incentives and Earned Privileges Scheme (IEPS) is a prison incentive scheme established in the United Kingdom in 1995 (Liebling, Muir, Rose, & Bottoms, 1999). The main aim of the policy is “to ensure that prisoners earn privileges by responsible behaviour and participation in hard work and other constructive activity” (Liebling, 2008, p. 30). The underlying theory is that favourable behaviour will be repeated if it is reinforced by rewards and unacceptable behaviour will not be repeated if it leads to a negative response (Prison Reform Trust, 1999). The scheme provides three levels of incentives based on an inmate’s behaviour, willingness to cooperate, participation in hard work, and other constructive activity. The privileges available under the IEPS include access to private cash, extra visits, enhanced earning schemes, community visits, own clothes, time out of cell for association, and in-cell television. An evaluation of the IEPS by the Prison Reform Trust suggests a number of weaknesses with the system. For instance, the majority of inmates felt that although the principles of the scheme were fair, the policy sometimes operated unfairly. There were also no significant improvements observed in prison behaviour. There were reductions in favourable perceptions of staff fairness, relations with staff, regime fairness, consistency of treatment, and progress in prison. However, staff reported increased confidence, feeling less intimidated by prisoners, and better able to communicate with and motivate prisoners. An evaluation by Liebling (2008) produced similar findings. There were few improvements in prisoner behaviour or order and significant losses in

staff-prisoner relations, perceived fairness, and perceptions of procedural justice. To improve practice, the Prison Reform Trust advised that prisoners who lose privileges should be told clearly what they have done wrong and what they can do to regain their former status. Warning systems should be put in place to allow inmates the opportunity to improve their behaviour or performance. Lastly, privileges should be valuable enough to ensure inmates are responsive to the scheme and motivated to make progress. Incentives and earned privileges are valuable in contemporary prison regimes but need to be administered fairly, individually, and constructively (Liebling, 2008).

On an intensive behaviour therapy unit (IBTU) in a maximum-security female prison, incentives are distributed based on adherence to a daily checklist of personal hygiene, sanitation, and socialization activities. The goal of the IBTU is to promote prosocial behaviour and extinguish problem behaviour. The IBTU consists of levels of privileges (e.g., phone calls, recreation time) in which inmates can advance or be demoted. An inmate must demonstrate a significant period of stability in behaviour change before being integrated back into the general prison population. A pilot study testing the efficacy of the program suggests that inmates had fewer disciplinary reports in the three months after release from the IBTU than in the three months prior to admission (Daniel, Jackson, & Watkins, 2003). Further, the coordinator and consultants rated a greater number of inmates as improved than would be expected by chance.

Ellis (1993) describes a contingency management work squad program for inmates in administrative segregation. Only inmates who demonstrated good institutional behaviour (e.g., follow prison rules, behave courteously and display good hygiene) were eligible to participate in the program. Inmates earned one point per week and could be exchanged for a warden's reclassification review once three points have been accumulated. Inmates who did not maintain

good behaviour were dismissed from the squad. Participation in the work squad program was found to reduce the frequency of violent and assaultive behaviour in the majority (8 out of 10) of the participants.

An early prison release incentive impacted inmates' perception of drug treatment (Raney, Magaletta & Hubbert, 2005). The study compared inmates in their first, third, or sixth month of residential drug treatment who were eligible ( $n = 71$ ) or ineligible ( $n = 16$ ) for the early release incentive. Eligible inmates endorsed a greater number of learning areas and skills that they wanted to focus on in treatment. Inmates who were eligible for the early release incentive had an overall higher satisfaction in and greater perceived helpfulness of the treatment program than those who were ineligible. Thus, the early release incentive served to encourage treatment engagement.

Kandel, Ayllon, and Roberts (1976) investigated the effects of different incentive reinforcement schedules on the academic performance of two prison inmates. The academic performance of the inmates was compared when a fixed number of points were earned for each skill level completed (standard schedule of reinforcement) to a variable number of points earned depending on the amount of time between passing tests (enriched schedule of reinforcement). The enriched schedule of reinforcement produced high rates of academic performance in both inmates who had a long history of academic failure and were unmotivated to engage in academic work.

Geller, Johnson, Hamlin, and Kennedy (1977) identified the issues that arose in implementing a large-scale contingency management program in the Virginia correctional system. This program combined token economy procedures with progressive living through four stages. Restrictions successively decreased and response opportunities increased as inmates



moved through the stages. Greater privileges and educational opportunities were available in each progressive stage. Tokens could be spent only by the individual who earned them to avoid undesirable behaviour such as stealing and gambling. A number of problems were encountered in implementing the program, including a lack of sufficient training and supervision for the counsellors and guards, limited finances and manpower, and external pressure caused by political, economic, and administrative considerations. Further, the program was labelled as 'brainwashing' and 'lobotomy' by guards, reducing the credibility and ability to develop rapport.

While positive reinforcement involves rewarding desirable behaviour, negative reinforcement consists of taking away a sanction in exchange for desired behaviour. Although positive reinforcement is generally the most effective, it may incite some resistance in a criminal justice setting on the ground that "it is inequitable to reward antisocial individuals for doing what is minimally expected of most citizens" (Marlowe, 2006, p. 131). Negative reinforcement, on the other hand, avoids the adverse effects of punishment while also being acceptable to stakeholders (Marlowe, 2006). Alternatively, positive reinforcement could be used to initially engage offenders in treatment, and negative reinforcement could subsequently be used to maintain adherence over time (Marlowe, 2006).

Rewarding appropriate behaviours among inmates can serve to promote motivation and engagement in treatment program activities when they are properly structured and administered (Burdon et al., 2003). Behavioural reinforcement of treatment attendance has been found to increase treatment retention, reduce unexplained absences, and improve employment and social adjustment while decreasing criminal behaviour (Burdon et al., 2003).

### Contingency Management in Drug and Alcohol Treatment

Contingency management strategies have been used at length in drug and alcohol treatment (see Higgins & Silverman, 1999 for an extensive review). Contingency management in the treatment of drug and alcohol abuse has been found to be successful in various populations. This includes adolescents (Corby, Roll, Ledgerwood, & Schuster, 2000; Kamon, Budney, & Stanger, 2005), women (Svikis, Lee, Haug, & Stitzer, 1997), and in particular, pregnant women (Elk, Mangus, Rhoades, Andres, & Grabowski, 1998; Jones, Haug, Silverman, Stitzer, & Svikis, 2001). Most of the contingency management programs currently in use to treat substance abuse rely on reinforcement rather than punishment due to the likelihood of treatment attrition if participants are punished (Burdon et al., 2001). Positive reinforcers tend to be more efficacious in retaining clients in treatment than negative reinforcers (Petry, 2000). Incentives utilize the same behavioural processes of reinforcement to foster recovery which play a role in drug dependence and abuse (Higgins, Alessi, & Dantona, 2002). For instance, cocaine use is an operant behaviour that delivers positive reinforcing effects (Higgins, 1997). Therefore by increasing the availability of alternative non-drug reinforcers, cocaine use and abuse can be significantly reduced. The efficacy of various types of reinforcers have been tested and compared, from goods and services to monetary vouchers and prizes. Typically drug or alcohol consumption is used as the target behaviour, although treatment attendance and activities have also been examined. Incentive programs have been successful in both decreasing maladaptive behaviour and increasing productive behaviour.

Corby et al. (2000) tested the effects of a contingency management intervention with adolescent smokers. The participants received payment noncontingently during the first and third week of the experiment, and contingent on not smoking during the second week. The

intervention was successful in increasing the total number of abstinences from smoking. Providing contingent payment with verbal feedback has also been found to be effective in lowering drug use (Hall, Bass, Hargreaves, & Loeb, 1979). Outpatient heroin detoxification patients receiving the contingency had significantly lower illegal drug rates and longer sequences of drug-free days than a control group receiving standard treatment. Refundable deposits have been used as an incentive for participation in behavioural programs to treat alcohol abuse. Participants in a group treatment program for driving under the influence of alcohol who were required to place a \$50 refundable deposit at the beginning of treatment had fewer unexcused absences and were more efficient in completing treatment forms than those who did not place a deposit (Ersner-Hershfield, Connors, & Maisto, 1981). However, no differences were found in the number of sessions attended.

Voucher-based reinforcement has been found to be an efficacious method of increasing drug abstinence, medication compliance, and participation in treatment programs (Silverman, Preston, Stitzer, & Schuster, 1999). Generally vouchers exchangeable for retail items are provided to participants contingent upon submitted drug-free urine samples, while a control group receives standard treatment. Higgins et al. (1994) found that cocaine-dependent adults eligible for vouchers were more likely to complete treatment and had longer durations of continuous cocaine abstinence than those receiving only the standard treatment. Budney, Higgins, Radonovich, and Novy (2000) compared the outcomes of individuals with marijuana dependence receiving motivational enhancement (ME), ME plus behavioural coping skills therapy (BCS), or ME plus BCS plus voucher-based incentives. Adding voucher-based incentives was more effective in increasing marijuana abstinence than either of the other treatments. The efficacy of voucher-based reinforcement has been replicated in a number of

studies (Downey, Helmus, & Schuster, 2000; Higgins et al. (2002), Iguchi, Belding, Morral, Lamb, & Husband, 1997; Jones et al., 2001; Kirby, Marlowe, Festinger, Lamb, & Platt, 1998).

Because vouchers take into account individual preferences, they hold promise for special populations of substance abusers such as pregnant and recently postpartum women, adolescents, and those with serious mental illness (Higgins et al., 2002). A successful contingency management plan for illicit drug use requires the use of a multidisciplinary team, staff supervision, policies developed by staff as a whole, and the belief by staff that the system works (Calsyn & Saxon, 1987). A well-designed and well-implemented voucher-based approach improves compliance and reduces recidivism (Burdon et al., 2001). Although a contingency management system may pay for itself in this sense, the savings may not be realized by the same funding sources that provide treatment. The use of vouchers, for instance, may not be acceptable to all stakeholders involved in correctional practice. For the general public that believes that criminal should be punished, vouchers may be viewed as ‘paying criminals to be good’ (Burdon et al., 2001). Lastly, it may be difficult to integrate a contingency management protocol into existing correctional practice.

Although voucher-based reinforcement in drug and alcohol treatment is widely employed and evaluated, alternative reinforcers can be used to effectively approximate the target behaviour. Silverman et al. (2002) investigated the efficacy of providing access to a ‘therapeutic workplace’ (employment or training) in heroin- and cocaine-dependent, unemployed, treatment-resistant young mothers. Participants were required to provide drug-free urine samples before permission was granted to be paid to work or train. Over the course of three years, participants in the workplace program had increased cocaine and opiate abstinence on a continuous basis relative to a control group receiving standard care. Miller (1975)

examined a behavioural intervention program for offenders with chronic public drunkenness charges. The positive contingency management system entailed the provision of goods and services that participants required (e.g., housing, employment, medical care, clothing, meals, cigarettes, and counselling) contingent upon their sobriety. Participants in the program substantially decreased their number of public drunkenness arrests and their alcohol consumption, and increased their number of hours employed. No such changes were observed in a control group receiving services on a noncontingent basis.

Providing the opportunity for take-home methadone privileges has been investigated in methadone maintenance patients. Stitzer, Iguchi, and Felter (1992) compared the outcomes of patients receiving take-home methadone either contingent upon two weeks of drug-free urine samples or noncontingently. Participants in the contingent group were more likely to produce at least four weeks of abstinence (32% vs. 8%). Subsequent to the initial testing period, 28% of the participants receiving take-home privileges noncontingently achieved abstinence once shifting to the contingent procedure. Glosser (1983) discovered that methadone maintenance patients that received points for drug-free urinalysis reports that could be redeemed to obtain methadone had lower illicit drug use after six months than patients receiving traditional treatment. Although take-home medication is valuable to methadone patients, alone it may be incapable of competing with some patients' motivation for supplemental drug use (Magura, Casriel, Goldsmith, Strug, & Lipton, 1998). Silverman, Robles, Mudric, Bigelow, and Stitzer (2004) conducted a similar study with methadone-maintenance patients, but included a third group which received take home-methadone doses plus up to \$5800 in vouchers. Both of the abstinence-reinforcement groups had higher abstinence from cocaine, but the addition of voucher incentives resulted in the largest and most sustained abstinence.

Contingency management programs in drug and alcohol treatment tend to be costly to employ and manage (Higgins et al., 2002). Recently, procedures aiming to provide contingent reinforcement in a cost-effective manner have been developed. The “fishbowl technique” is an intermittent reinforcement schedule which provides participants opportunities for reinforcement (i.e., drawing a voucher from a fishbowl) for attending treatment or for providing drug-free urine samples (Marlowe, 2006). Petry and Martin (2002) investigated the efficacy of a prize reinforcement procedure for methadone patients. Longer durations of continuous cocaine and opiate abstinence were observed in 23 patients that drew a voucher (prizes ranging from \$1 to \$100) from a bowl for submitting negative urine samples than 19 patients receiving standard treatment with no contingency management component. These effects were maintained throughout a 6-month follow-up period. Similar findings were observed in alcohol-dependent veterans offered the chance to win prizes for submitting negative Breathalyzer samples (Petry, Martin, Cooney, & Kranzler, 2000). While 85% of the contingency management participants were retained in treatment for an 8-week period, only 22% of participants receiving standard treatment were retained. Sixty nine percent of the contingency management participants maintained abstinence until the end of treatment, while 62% of the other participants had used alcohol. Petry, Alessi, Marx, Austin, and Tardif (2005) compared contingency management interventions with the use of vouchers or prizes as incentives for substance abusers in community settings. Participants in both contingency management conditions remained in treatment longer and achieved greater durations of abstinence than patients receiving standard treatment. Importantly, there were no significant differences between vouchers and prizes.

In the vast majority of studies examining contingency management interventions in drug and alcohol treatment, abstinence is the target behaviour. Iguchi et al. (1996) compared the

effectiveness of reinforcing two different types of target behaviours in a methadone maintenance program. Take-home medication was provided contingent on either drug abstinence or attendance of interpersonal problem solving training. The participants reinforced for abstinence showed greater improvements in rates of abstinence from drugs, suggesting that contingency management interventions should target drug-using behaviour specifically. Petry et al. (2006) also found that reinforcement of abstinence resulted in better outcomes than the reinforcement of adhering to goal-related activities, although there were no differences by group in abstinence at 6- and 9-month follow-up periods. Both groups of contingency management patients remained in substance abuse treatment longer and achieved more treatment than a control group receiving standard treatment. Conversely, Iguchi et al. (1997) found that reinforcing alternative behaviours other than abstinence to be an effective method of decreasing unauthorized substance use. Providing vouchers to reinforce the completion of treatment plan-related tasks resulted in higher abstinence than the provision of urine samples testing negative for illicit drug use. Petry (2000) suggests that reinforcing activity completion may reduce drug use, improve the therapeutic alliance, and improve psychosocial functioning. Reinforcing treatment attendance can also enhance treatment participation.

Contingency management interventions in drug and alcohol treatment appear to be successful in reducing maladaptive behaviour and encouraging productive behaviour. It is clear that for the most part, these interventions are successful in reducing drug use (Budney et al., 2000; Downey et al., 2000; Glosser, 1983; Griffith, Rowan-Szal, Roark, & Simpson, 2000; Hall et al., 1979; Higgins et al., 1994; Iguchi et al., 1996; Iguchi et al., 1997; Jones et al., 2001; Kirby et al., 1998; Liebson, Tommasello, & Bigelow, 1978; Milby, Garrett, English, Fritschi, & Clark, 1978; Petry & Martin, 2002; Silverman et al., 2002; Stitzer et al., 1992) and alcohol consumption

(Miller, 1975; Petry et al., 2000). In the past, contingency management strategies have been found to decrease arrest rates (Liebson, 1978; Miller, 1975). Lastly, these strategies have resulted in increased employment (Liebson, 1978; Miller, 1975), treatment attendance (Elk et al., 1998; Ersner-Herschfield et al., 1981), and treatment completion (Higgins et al., 1994).

Kidorf and Stitzer (1999) suggest that reinforcers are most effective when they are modified by amount or frequency, administered repeatedly, and applied proximately to the target behaviour. The more certain and swift are the rewards, the greater the effects on behaviour change (Marlowe, 2006). Incentives, such as vouchers which are objective and quantitative, can be manipulated in search of optimal efficiency and effectiveness (Silverman et al., 1999). The desired behaviour should be monitored on a regular basis, such that appropriate behaviours can be reinforced frequently and consistently (Petry, 2000). Iguchi et al. (1997) advise that the reinforcement of behavioural tasks targeted toward long-term goals increases involvement in behaviours inconsistent with drug use. This method of shaping allows participants to approximate target behaviours, with smaller and more achievable goals. On a similar note, Petry (2000) recommends reinforcing successive approximations toward abstinence, reinforcing other behaviours that facilitate abstinence, and using incentives that are of sufficient value to offset the reinforcement received from using substances.

Preston, Umbrecht, Wong, and Epstein (2001) compared a shaping contingency to a standard contingency in cocaine-using methadone-maintenance patients. The experimental group received vouchers for a 25% decrease in cocaine metabolite in each of their urine samples, while the control group received vouchers for any cocaine-negative urine sample. Rewarding patients for successive approximations of the target behaviour appeared to better prepare them for abstinence, as demonstrated by lower cocaine use in the shaping group. When the response



requirement was changed to abstinence for both groups, the former shaping participants maintained a higher rate of abstinence than those participants that were required to display abstinence all along. This finding demonstrates that a target behaviour induced by escalating-value reinforcers can be maintained by a non-escalating schedule.

Kirby et al. (1998) examined whether the schedule of reinforcement had an effect on the initiation of abstinence in cocaine-dependent adults receiving behavioural counselling. Participants were provided either 1) high vouchers at the beginning with increased requirements for earning vouchers, 2) low vouchers at the beginning and an increasing value of vouchers throughout the course of treatment, or 3) no vouchers. The high voucher group had significantly longer durations of cocaine abstinence than the low voucher group, while the low voucher group did not differ from the group receiving no vouchers. Roll and Higgins (2000) compared three schedules of reinforcement for promoting and sustaining short-term drug abstinence: 1) fixed magnitude of reinforcement for abstinence, 2) a progressive increase in magnitude of reinforcement for abstinence with a reset contingency for drug use, and 3) a progressive increase in magnitude of reinforcement for abstinence without a reset contingency. The progressive magnitude with a reset schedule was more effective than the other two schedules in sustaining an initial period of abstinence in 18 cigarette smokers.

A meta-analysis of contingency management interventions with drug use as the outcome measure produced an overall effect size of 0.25 based on 30 studies (Griffith et al., 2000). The effectiveness of contingency management interventions differed under certain conditions. The most effective reinforcers involved increases in methadone dose and methadone take-home privileges, as opposed to vouchers or money. Immediate and mixed (both immediate and delayed) intervals in the length of time to reinforcement delivery were more effective than

delayed rewards alone. Larger effect sizes were demonstrated in studies in which only one drug was targeted for behavioural change, versus multiple drugs. Lastly, the frequency of monitoring of the target behaviour was also important, with more frequent urinalyses being more effective than less frequent testing.

Chutuape, Silverman, and Stitzer (1998) examined patient preferences for the types of incentives offered in methadone maintenance patients. Take-home medication was the most preferred in a sample of 111 methadone patients, followed by dose increases and counselling. A wide variety of individual differences were observed in a ranking of preference for 18 other service items (e.g., cost of living payments, medical care, vocational training). This highlights the need for contingency management plans to be tailored based on individual needs. Svikis et al. (1997) found that patients offered higher magnitude incentives (\$5 and \$10) attended more days of treatment than those offered no payment or \$1 per day. This was only true for non-methadone patients (i.e., no effect for methadone patients).

#### Contingency Management in Mentally Disordered and Low Functioning Populations

Contingency management strategies have been implemented in mentally disordered and other low functioning populations dating back to the 1970s. Examples include providing coffee packets to promote good personal hygiene, music and games to reduce disciplinary infractions, and scheduled phone calls for not harassing counsellors (Seegert, 2003). Kazdin and Polster (1973) conducted a case study of token reinforcement with two male adults with mental retardation, with the goal of increasing social interaction. The removal of the contingency resulted in a dramatic decrease in the social interactions of both participants, demonstrating the control of the token reinforcement. To examine the effects of the schedule of reinforcement, token reinforcement was withdrawn after a period in which reinforcement was provided

continuously to participant A and intermittently to participant B. While participant B continued to interact socially, participant A did not.

Bellus, Vergo, Kost, Stewart, and Barkstrom (1999) examined the use of token economies in conjunction with rehabilitation programming in psychiatric inpatient settings. Reinforcement was systematically provided for adaptive behaviours, while token fines were imposed to penalize maladaptive behaviours. Lower rates of aggressive and self-injurious behaviour were observed in a group of cognitively impaired, chronic psychiatric patients compared to a similar group not subject to the token economy. The authors conclude that a token economy is effective in increasing ward structure and reducing aggressive behaviour. Longo and Bisconer (2003) also observed a decrease in aggressive acts following the introduction of a behavioural plan in an adult male with schizophrenia in a psychiatric hospital. The behavioural plan was developed to provide the client with positive social interactions, social skills training, and positive reinforcement for prosocial behaviour.

The efficacy of contingency management programs in drug and alcohol treatment has also been demonstrated in patients with psychiatric problems. In a study by Sigmon, Steingard, Badger, Anthony, and Higgins (2000), monetary incentives were provided to 18 adults with serious mental illnesses (e.g. schizophrenia) to promote abstinence from marijuana use. Marijuana use was lower when monetary incentives were provided dependent on negative urinalysis tests. Monetary incentives have also been found to increase abstinence from cigarette smoking in adults with schizophrenia (Roll, Higgins, Steingard, & McGinley, 1998).

#### Individual Differences in Sensitivity to Incentives

Within a correctional institution, some inmates may be more sensitive to reinforcement, and thus more likely to display the targeted behaviour. For instance, Leue, Brocke, and Hoyer

(2008) demonstrated that sex offenders display a greater sensitivity to continuous reward than male non-offenders. Differences in reinforcement sensitivity between subgroups of sex offenders were also found, with paraphilic and impulse control-disordered sex offenders displaying a greater sensitivity to continuous reward. Psychopaths also show a greater responsiveness to reward, tending to focus on the prospect of reward under conditions of mixed incentives (i.e., possibility of both punishment and reward; Scerbo et al., 1990). Newman, Patterson, Howland, and Nichols (1990) found that psychopaths display passive avoidance deficits on tasks involving both monetary rewards and punishments, as opposed to tasks involving only monetary punishments. Newman, Kosson, and Patterson (1992) measured delay of gratification as a form of self-control in psychopathic and nonpsychopathic offenders. Low-anxious psychopaths were relatively unwilling to delay when the omission of rewards also incurred monetary punishment, suggesting that inhibitory self-control is somewhat impaired in these offenders under conditions involving both rewards and punishments. However, low-anxious psychopaths displayed superior performance when the task involved rewards only.

Prisoner differences were observed in the evaluation of the incentives and earned privileges scheme in England and Wales (Liebling, 2008). In particular, vulnerable (in terms of risk of suicide), compliant, older, and more educated prisoners reacted less favourably to the policy. Prisoners at high risk of suicide reported the highest drops in staff, regime, and procedural fairness following the introduction of the policy. Finally, the perceived level of fairness was lower in the lower privilege levels.

Individual differences in reinforcement sensitivity are also evident in an analysis of delay discounting. Delay discounting consists of decreasing the value of a delayed reward as a function of delay interval. Petry and Casarella (1999) examined discounting rates in substance

abusers with and without gambling problems compared to a control group. Substance abusers have higher discounting rates (i.e., choose a reward with a lower value, as opposed to delaying a reward with a higher value) than controls, while problem-gambling substance abusers have extremely high discounting rates. Although these studies are relatively specific to offender types, they demonstrate the individual differences inherent in the sensitivity to rewards and punishment.

While some individuals are especially sensitive to reinforcement, voucher-based reinforcement methods are not effective in producing a change in all individuals (Silverman et al., 1999). Some offenders may be resistant to a contingency management intervention, and consequently fail to display substantial amounts of the target behaviour. Kidorf, Stitzer, and Brooner (1994) examined the differences between patients in methadone maintenance treatment who achieved a drug-free status and those patients who failed to meet take-home criteria during a one-year assessment period. The patients who earned take-home incentives were more often employed, less likely to have a cohabitating partner who used illicit drugs, and had less baseline cocaine and heroin use. Individuals who might succeed in an incentive program may be identified since there are characteristics that differentiate those who respond to incentives and those who do not.

In implementing a contingency management intervention, a behavioural contract is essential (Petry, 2000). This contract should define specific behaviours to be monitored, a schedule of monitoring, and contingencies to be imposed. Behaviours that are reinforced need to be objectively quantified and the contract should be explicit and unambiguous. Calsyn and Saxon (1987) suggest this contract should encourage the patient in a supportive, empathic, non-punitive manner in order to enhance his or her involvement in treatment.

### Role of the Date of Publication

Contingency management strategies and the corresponding research have evolved from the 1970s to the present. The types of incentives offered have moved from monetary incentives to voucher-based incentives, particularly in drug and alcohol treatment in which there is the concern that participants will purchase substances if money is awarded. Attempts have also been made to develop cost-effective incentive programs, such as the fishbowl technique and other prize reinforcements. These methods show promise in reducing substance use and abuse (Marlowe, 2006; Petry & Martin, 2002; Petry et al., 2000; Petry et al., 2005).

In recent years, the samples used in research have expanded to include adolescents (e.g., Corby et al., 2000; Kamon et al., 2005) and women (e.g., Daniel et al., 2003; Elk et al., 1998; Jones et al., 2001; Svikis et al., 1997). Contingency management interventions are being explored more in mentally disordered populations than in the past (e.g., Bellus et al., 1999; Sigmon et al., 2000). In the 1970s, research often took the form of case studies (e.g., Kandel et al., 1976; Kazdin & Polster, 1973) as opposed to the experimental and quasi-experimental studies conducted in contemporary research.

### Conclusion

The existence of rule violations, misconducts, and acts of violence in prisons necessitates interventions to control and change behaviour. Strategies such as “no frills” prisons, treatment programs, and drug treatments have been proposed and/or implemented. Contingency management programs have also received varying levels of attention over the past three decades. The United Kingdom in particular has focused their efforts on developing incentive schemes in correctional institutions. It is evident that there are numerous problems and weaknesses with the practices and policies of the Incentives and Earned Privileges Scheme. Lessons can be learned

from the UK experience and from other contingency management programs in prisons.

Liebling's (2008) paper is perhaps the most ambitious and salient among all published work in that it provides a meaningful context to appreciate the purpose and challenges of implementing a standardized incentive model in a correctional setting. Further, individual incentives and systemic incentives have shown some promise in non-correctional settings including drug and alcohol treatment and mental health treatment.

It is clear that the development of behavioural management strategies is complex in that only a minority of offenders commit serious misconducts and that issues of fairness are often compromised when broad-based discipline strategies are attempted. Such approaches invariably do not yield improved behavioural management, despite staff's belief to the contrary. Overall, the results regarding the effectiveness of incentive systems to manage offender behaviour is mixed. Similar to offender programming, there is increasing consensus regarding what not to do but far less consensus regarding viable next steps.

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Offender Incentives and Behavioural Management Strategies

Part II (Consultation)

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## Offender Management Paper

### Part II

#### Context

Part I provides a literature review and some summary comments regarding the limitations of an offender management model that focuses on the more traditional goal of reducing institutional misconducts. As noted in the literature review, such misconducts are relatively infrequent, with the majority being committed by a small number of offenders. Moreover, since engagement and progress in the correctional plan is a more specific goal of recent interest for CSC, it is apparent that the earlier literature is only tangentially informative. The program dropout literature is perhaps of more relevance and two recent studies using CSC databases are germane (Nunes & Cortoni, 2006; Nunes, Cortoni, & Serin, in press). The most recent paper describes the development and validation of a Dropout Risk Screen and is worth further explanation in that it considers both static and dynamic factors. Using a large sample of offenders, it was demonstrated that SIR-R1 scores (higher risk), age (older), motivation for intervention (lower), and marital /family (considerable difficulty) and attitude (considerable difficulty) needs domains were related to increased risk of program dropout. Increased scores yielded increased rates of program dropout, ranging from a low of 0% to a high of 83%, with a baserate of 11.3% for the sample of 2,617 offenders. This implies that Offender Intake Assessment data may be a viable dataset to consider in the development of a program engagement index that would inform offender management. It is not overly dynamic so it may not be the preferred method to measure *changes* in treatment readiness but could be a reasonable screen.

Other research regarding program performance and completion suggests that staff interpersonal style and skills influence outcome (Dowden & Andrews, 2004). More recent research highlights the unique challenge within corrections regarding dual roles (Skeem & Manchak, in press) and how a balance between overly authoritarian and overly rehabilitative (i.e., hybrid model; Klockar, 1975), yields the best correctional outcomes. This is a variant on the “firm but fair” theme championed by Andrews and colleagues but underscored by Liebling (2008) in her recent critique of offender incentive regimes. Correctional staff has the most regular and frequent contact with offenders by virtue of their numbers (40% of all CSC staff) and role within a prison setting. Accordingly, since the principle agents of change in a proposed offender management system are correctional staff, this research is particularly relevant. A somewhat dated staff survey by CSC reported that corrections staff do not universally espouse rehabilitation views (Larivière & Robinson, 1996). In my view, even with significant improvements in recruitment, selection and training, for correctional officers as a group to be effective agents of change, this will require a paradigm shift in their perceived role and purpose in corrections. Moreover, an understanding of both provincial and federal corrections suggests this will be a major challenge. As an aside, but hopefully a useful observation based on recent training, case management staff is modestly unreliable in completing the SIR-R1 risk assessment, which in comparison to the task being proposed with an incentive system is straightforward. This indicates that discussions with senior custody staff regarding organizational readiness would be important.

Gendreau (2003) provides an exceedingly detailed overview of behaviour management systems and their application to correctional settings. It is impossible for me to fully do justice to the breadth and thoughtfulness of his review and observations but he concludes a behavioural

management system, if implemented well, will yield predictable changes in offender behaviour. One aspect that underscores his review is his discussion of positive reinforcers (i.e., incentives). The application of an offender management strategy, specifically in terms of engagement in correctional plans, through the use of differential incentives, is hampered by the lack of empirical, or even qualitative, understanding of what might be motivating for different offenders. A review yielded 1 peer reviewed publication, 1 non-academic publication and 1 unpublished manuscript. As well, some information may be available from the CSC inmate survey but all these descriptions are quite dated meaning they no longer be relevant with the current offender populations. Moreover, the salience of reinforcers/incentives are person-specific, meaning that they may be of interest to one person but not another. For instance, if the issue of increased visits is employed as an incentive for offenders engaged in their correctional plan, this will be irrelevant for offenders who do not receive visits. This implies that having a menu of incentives of equal valence from which offenders could choose may have merit, but would be challenging to operationalize.

### **Consultation**

In order to provide further context regarding this review and the proposed goals of CSC to utilize incentives to manage offender behaviour, academic and government researchers in the United States, Canada, and New Zealand were contacted. The United Kingdom viewpoint seems well represented by Liebling's (2008) paper. Efforts to get explicit feedback from Australia were unsuccessful.

None of these jurisdictions are proceeding with similar work or policies. In the Bureau of Prisons, apparently drug offenders who complete programming receive a deduction of 2 years from their sentence. New Zealand has an internal discussion paper under review for managing

offender behaviour in their version of a special handling unit. Interestingly, their earlier attempt was viewed by the courts as punitive and financial compensation has been awarded to offenders who were deemed to have experienced cruel and unusual punishment as part of that Behaviour Management Regime. Similar efforts at a progressive incentive-based system in the United Kingdom's Close Supervision Centres were problematic in that the privileges offered were not regarded as desirable by the prisoners, and consequently, the regime failed to deliver the expected improvements (Clare & Bottomly, 2005). Importantly, the New Zealand discussion paper recommends a Unit Review Panel be responsible for entry to and exit from the management unit and determining an offender's particular level of the Unit's Incentive Framework. A psychologist sits on the Unit Review Panel.

The proposed incentive system in New Zealand has time incident-free as a criterion for movement between levels. Levels vary in terms of number of hours in unlock, nature of restraint when moving within the prison, access areas within the prison, nature of interaction with other offenders (and number of offenders permitted to congregate together), property in cell, number of visits beyond legal requirements, phone calls, canteen purchases, smoking hours, and potential for employment as a cleaner in the unit.

An additional consultation was completed with senior staff with CSC. The initial consultation took place with several members of the Transformation Team. This meeting highlighted the progress made to date by the working group to identify a tentative list of potential incentives (not unlike those currently under review in New Zealand). It was also apparent that security representatives on the working group wished greater autonomy for correctional officers in terms of immediate intervention with offenders (application or removal of incentives) under the guise of immediacy. Based on the experience of other settings, this could readily become a

capricious model. One strategy would be to set limits regarding the type of sanctions that could be applied in real time compared to decisions arrived at by a Review Panel, essentially creating a 2 tier model. Subsequent discussion indicated that there was interest in identifying two groups – engaged or not engaged in their correctional plan. This will be addressed later.

Senior Reintegration Programs staff strongly supported the emphasis on offender engagement in their correctional plan. With changes in programming focus in CSC, it was noted it will be important to determine if education and employment receive equivalent “status” as a core program. Also, it was noted that ideally Correctional Program Officers, Correctional Officers, and Social Program Officers use a similar matrix for evaluations of “engaged” behaviour. There was some discussion regarding potential domain areas for assessment of “engaged” and examples are presented in Appendix A. The issue of performance notices or tickets (Gendreau refers to this token economy model in his paper) was discussed and how that might be operationalized for the regular review of an offender’s incentive level. It was conceded that focus groups would need to be considered in order to better identify meaningful incentives. There was also some discussion whether incentives should vary by type across security levels (e.g., TV versus computer access), not just degree (e.g., different amount of materials to be permitted in cells). Finally, senior Reintegration Programs staff wondered if the development of an Accountability Index was possible. Candidate variables included: correctional program completion (greatest weighting), institutional behaviour, employment and education progress, and remaining incident free. Such an index could apparently be incorporated into Program Performance Measure II and complement the Generic Program Performance Measure. Baseline and monthly ratings could be used in the final program report to differentiate among offenders and to inform decision making.

The discussion with CSC legal and policy staff focussed on several key themes. There was discussion about rights versus privileges and what represented the “basic” level for offender privileges. Also, whether this should vary by security level (the consensus was that it should not) but that each privilege might look different for each security level. The issue of contact with community/visits is a good example. Second, there was marked concern about adopting a position whereby rights (e.g., parole eligibility) might be affected by an offender’s status as engaged or not. While a non-engaged offender might not get CSC support for parole<sup>1</sup>, there were concerns if this evolved to a change in the eligibility for parole. Issues of transparency and fairness were raised regarding the latter point. Finally, the issue of measurement was discussed in terms of reliability and validity and how this might affect an incentive system in terms of legal challenges.

The final consultation was with an academic colleague with a background in juvenile justice and behavioural intervention (Multisystemic Therapy). A long discussion ensued regarding challenges to an incentive system and how demonstrated failures in the research literature most typically reflected inadequate staff training (too low a ratio of positive to negative reinforcement; too willing to focus on negative offender behaviour; confrontational interpersonal style of custody staff) and implementation difficulties (lack of oversight; too much autonomy for staff to apply sanctions; weak selection of incentives). This was a sobering but necessary discussion. In short, while the literature clearly shows the merits of an incentive system to manage behaviour across a range of settings, the reality of implementation and operational challenges, attenuate its effectiveness. Moreover, ideology often sabotages implementation such that staff uses the management system to punish offenders (or clients in other settings) for interpersonal issues under the guise of problematic behaviours. This alludes to the issue of the

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<sup>1</sup> Presently this is implicit but the proposed Offender Management System might consider making this explicit.



criterion for engaged behaviour or how high the bar would be set in evaluating offender behaviour.

### **Policy Issues**

Two of the key policy issues revolve around the distinction between privileges and rights and how to define of a “minimum” level of incentives. Also, if a current privilege is viewed by offenders to be a right, then changes will likely be challenged by offender advocacy groups, including in the courts and, initially, could result in disruptive offender behaviour within prisons, especially in medium and maximum security. Visiting privileges is a good example. Is visiting a right or privilege? If the former, what relevance do operational requirements have on how this is addressed at different security levels (e.g., noncontact visits at maximum security versus contact visits at lower security levels). If the latter, what level of offender behaviour is required for increased privileges? As noted earlier, a privilege also has to be relevant to an offender if it is to act as an incentive.

One key aspect of Liebling’s (2008) review is the need for transparency. Decisions regarding assignment to incentive level must be transparent and fair. A priori guidelines and the use of a Review Panel will assist in this regard. Interestingly, in other work (Liebling, 2006), the issue of fairness has been addressed, whereby offenders can more readily accept negative decisions if these decisions seem to be fair, equitable, and transparent. This appears consistent with the intended goals of the proposed incentive system to increase offender accountability.

Another policy issue could be the translation of policy guidelines to practice guidelines. Presently, a number of key documents (Mission, Report on Planning and Priorities) highlight key themes which are implemented according to various directives (Commissioner Directives, Standard Operating Practices). My recall of these two sources is that the first reflects broad

principles and contemporary goals for CSC, while the second reflects content or domain areas and information that must be considered. My recent training experience with parole officers is that the integration of these two important areas is often unclear, at least to operational staff. Given the aforementioned implementation challenges in other settings, there may be a need to better bridge policy and practice, all the while underscoring key principles of CSC.

### **Implementation Issues**

#### *Staff-offender interactions*

Trust in the therapist and therapist flexibility (Marshall, Serran, Fernandez, Mulloy, Mann, & Thornton, 2003), and perceptions of fairness by offenders (Liebling, 2006) seem central to the development of positive relationships. Interestingly, the latter is related to increased cooperation between offenders and staff, and leads to reduced prison misconducts (i.e., safer prisons) (Liebling, 2006). As well, these abilities are not only related to improved connection between staff and offenders, but also yield increased acceptance of responsibility and higher program completion rates. Further, being empathic and respectful is reflected in motivational interviewing (Ginsburg, Mann, Rotgers, & Weekes, 2002) and its application to offenders has resulted in reduced rates of re-offending (Antiss, 2006).

Arguably, it is common sense to laud the importance of developing rapport in offender therapy, but what is the message for correctional administrators who manage large numbers of staff who interact with offenders on a daily basis? This review suggests that a common goal for correctional staff might be to better engage and connect with offenders. For instance, recent research with probation officers has demonstrated that an interactional style that is a blend of authoritative and firm but fair, has benefits relative to staff who are mainly either authoritarian or rehabilitative (Skeem & Manchak, 2008). Complementary findings have been reported by Bonta,

Rugge, Bourgon, Scott and (2008) who note that the use of structured guidelines regarding staff-offender interactions ameliorates criminogenic needs. Indeed, from a strict corrections perspective, the importance of staff as an agent of change has been described and highlighted in descriptions of core practices (Dowden & Andrews, 2004) and evidence-based practice (Serin, 2006). A summary of these characteristics is presented in Appendix B but refers to staff who are authoritative not authoritarian or confrontational, who have effective interpersonal and communication skills to engage offenders, and who believe in change. Broadly, staff who reflects these skills will have improved outcomes (Dowden & Andrews, 2004; Liebling, 2006; Marshall, Serran, Fernandez, Mulloy, Mann, & Thornton, 2003; Skeem, Eno Louden, Polasheck, & Cap, 2007). Such outcomes include more disclosure in interviews; improved engagement in programs; acceptance of responsibility for their criminal behaviour; improved program participation and completion; better adherence to group rules; fewer prison misconducts; favourable response to supervision, and reduced re-offending. Of interest is how well current correctional staff matches these characteristics.

As noted earlier, for correctional staff to be the primary agents of change within an incentive system, this will likely require a paradigm shift. Clearly there is individual variation among staff but correctional officers' primary focus is custody and this focus logically increases with increases in security level. This is crucial because maximum and medium security prisons are the settings where an incentive system for offender engagement is most needed. For this systemic change to occur, it cannot be met by either only new training or new selection criteria for correctional staff. Both will be required, over a sustained period, for implementation to be successful.

*Prison Climate*

It should be apparent that staff training and prison climate will be critical to the eventual success of an incentive system to engage offenders to follow their correctional plan and to increase offender accountability. Equally critical will be the requirement of CSC to have the capacity to provide appropriate programming in a timely manner. At present, unless the current challenges of waiting lists and over-referral to correctional programs can be overcome, these problems will erode the successful implementation of an incentive system, as envisaged by CSC. The development of the Integrated Correctional Program Model (an innovative but apparently somewhat contentious new approach) may assist in addressing capacity difficulties but program effectiveness data will not be available for at least 2-3 years, well beyond the timeframe of the implementation of the proposed incentive system. In short, other strategies to address programming challenges will be required (i.e., empirically review program referrals against risk/need assessments; continued use of motivational engagement to limit program dropout; greater use of community-based programming). CSC has an institutional climate index (mainly for incidents) and it may be helpful to compare this index with correctional programming wait-lists to determine if efficient programming might ameliorate prison climate. From somewhat dated staff and inmate surveys, it is clear there are variations across institutions within a similar security level and region. These data might be profitably overlaid against correctional programming and institutional climate data to gain an additional perspective regarding implementation issues for the proposed incentive system. For instance, select data from this national survey (unpublished Research Branch presentation data, 1998) indicate that 64% of offenders report getting along well with correctional staff (compared to 77% in Scotland and 41% in Great Britain). Not surprisingly, this varies across security levels. When asked regarding

positive relations with staff (communication, concerned about needs, responsive to inmate input, protective of safety), the rates were 47%, 25% and 19% for minimum, medium, and maximum security, respectively. Since the incentive model is intended mainly to increase program engagement in medium and maximum security, this warrants further consideration.

### *Staff Training*

A recent risk assessment training with the National Parole Board and parole officers suggests that a competency model is important to effecting changes in attitudes and practice. Reintegration Programs has been doing this for many years with their Correctional Program Officers in order to ensure highly skilled staff delivers correctional programs. However, this training is very expensive, both in time and costs. There are some technological advances that could make such training more efficient and also focus on skills and competencies, in addition to knowledge. Such work is currently underway in the Criminal Justice Decision Making laboratory at Carleton University.

Selection of staff with the preferred specific characteristics and skills (see Dowden & Andrews, 2004) for the key positions within the proposed incentive model will be critical for its success, as will relevant, competency-based training. Indeed, based on my review, this will make or break the success of the model. Correctional manager oversight will also be critical to ensure program (offender management and accountability through incentives) drift is kept to a minimum.

### *Motivation and Program Engagement*

As noted earlier, motivational interviewing is a powerful strategy to engage offenders into programming (Ginsburg, Mann, Rotgers, & Weekes, 2002) and yields significant reductions in re-offending (Antiss, 2006). For this reason it makes sense to review ratings of motivation by

security level. Of interest is whether 2 groups (engaged and not engaged) accurately reflect the motivation data, across all security levels. CSC Research Branch kindly provided data from March 2009 to assist addressing this issue.

Table 1. Current motivation for custody snap shot (March, 2009)

MOTIVATION LEVEL	INSTITUTIONAL SECURITY LEVEL		
	MIN	MED	MAX
<b>LOW</b> (n=2585) 21%	3.7%	21.4%	43.8%
<b>MEDIUM</b> (n=7368) 61%	48.5%	66.6%	53.1%
<b>HIGH</b> (n=2106) 17%	47.8%	11.9%	3.2%

In minimum and maximum security, there are clearly 2 groups, curiously almost equal in proportion. For minimum security, only 3.7% are low motivation, whereas in maximum security only 3.2% are high in motivation. It is unclear if the criterion for desirable level of motivation should vary by security level. If the criterion is high level of motivation (which is naive from a corrections perspective given the nature of the federal offender population), this would mean that only 17% of offenders meet the engaged designation. More realistic criteria for engagement would be high motivation being designated as engaged in minimum security (meaning 47.8% of minimum security presently meet this criterion), and medium motivation being designated as engaged in medium and maximum security (meaning that 78.5% at medium security and 56.3% at maximum security presently meet this criterion). It should be clear from this illustration that global level of motivation is an insufficient measure of engagement and that further discussion is required regarding the goal of an offender behavioural management system.

CSC has cross-tabulated motivation level with risk and need, demonstrating that need is likely more closely aligned to motivation than risk. Moreover, CSC is presently investigating the utility of rating motivation within a specific need domain (T. Cabana, personal communication, 27 March 2009). Clearly this degree of specificity should enhance the comprehensiveness and sensitivity of an assessment of motivation beyond its current low, moderate, high index.

It is worth noting that within the broader correctional psychology literature several authors (Serin, 2001; Serin, Mailloux & Kennedy, 2007; Ward, Day, Howell & Birgden, 2004) have developed conceptual models and measures of treatment readiness that have received considerable interest and may be useful to consider in terms of measurement of engagement in programming.

#### *Identification of Incentives*

As noted earlier, very little is known empirically regarding offender incentives. This seems a critical issue that warrants further investigation through research (focus groups, surveys, etc.). Miller (2001) provides a suggested list of incentives, although this is not grounded in empirical evidence. It is more a correctional manager's general thoughts (e.g., "manage TV rather than manage *with* TV"). He provides a listing of domain areas (safety and security; attitude; motivation; involvement; use of time) and recommends six "levels". He then provides a grid that assigns incentives (physical conditions, daily schedule, visiting, exercise, recreation, telephone, food, activities, entertainment, commissary, and other privileges) to the different levels.

Petersilia and Deschenes (1994) provide a glimpse that there is variability among offenders' views of incentives by investigating their views regarding sanctions (e.g. sentencing guidelines). They further noted: 1) that inmates who were married and/or had children tended to

rank prison as more severe than those who were single, 2) inmates who were single tended to rank financial penalties as more severe than inmates who were married. There were differences on views based on demographic variables. Also, with the expectation that most citizens would prefer probation with conditions (treatment) to incarceration, it was perhaps surprising to observe that roughly a third of offenders chose prison as preferable to intensive supervision (Petersilia, 1990). These findings underscore the need to more systematically investigate incentives prior to implementation.

The results of an unpublished survey of Canadian offenders' views regarding reinforcers and punishers are provided as an Appendix C (Goddard & Gendreau, 1992). The "top" reinforcers, in order of preference were parole, temporary absences, family visits, family days, pay raises and better jobs in prison. Punishers, in rank order, include lack of family visits, higher security, double cell, failure to earn remission, pay cuts and solitary confinement. Incentive allowances included group socials, better access to better programs, recreation privileges, banquets, single cell, movies. Fines (disincentives) included cell confinement, poorer treatment, loss of recreation privileges and poorer jobs in prison. CSC would do well to carefully consider this listing and the distinction between incentives and fines. Finally, and most importantly, this research noted that 68% of offenders want a say into the selection of incentives; 56% would like a behavioural contract; 91% dislike group reinforcement or punishment; and, 70% dislike inmate committee involvement in the area of incentives. Again, these data provide insights to CSC regarding key elements of an incentive system.



## **Operational Considerations**

### *Measurement*

It should be clear that a major impediment to proceeding with the proposed incentive model relates to measurement. The conceptual framework for defining engagement requires further work and empirical validation. This is critical. Movement up a level of incentives should be predicated on the demonstration that improved correctional outcomes (reduced incidents, improved interaction with staff, improved program performance, reduced re-offending) will result for those in higher levels. The Evaluation Sector has just completed an evaluation of the predictive accuracy of the Generic Program Performance Measure but this has not yet been released. Thus, at present, little empirical evidence exists to demonstrate that pre-post program difference scores are related to post-program outcome. Essentially, this means within correctional agencies we know programming of the sort offered by CSC will reduce re-offending by rates of about 20-30% but we do not know for which offenders.

My research laboratory, with support and assistance from CSC Reintegration Programs and the Atlantic Region has commenced a research project relating to understanding offender change. We are also completing a review for the National Institute of Corrections regarding the measurement of offender change. Within this initiative is the measurement of competencies that we hypothesize is less sensitive to response set and offender malingering, and is theoretically related to crime desistance. The results of this research may provide some insights regarding measurement of offender change and could inform an incentive model. A brief description of these competencies is provided in Appendix D. Recent research indicates that these competencies are related to Generic Program Performance Measure scores more strongly than risk estimates, suggesting they may be viable treatment targets (Hanby & Serin, 2009).

*Implementation Considerations*

Throughout this review and consultation process it consistently emerges that the implementation issues are pivotal to the potential success of an incentive-based offender management strategy. At one level, the research on behavioural management systems (i.e., token economies) suggests such a strategy is viable. At another level, challenges to consistency and reliability are often underscored in risk assessment training. This raises serious concerns regarding the perils of inadequate training and the need for oversight of correctional staff who would be responsible for rating offender engagement.

Various obstacles and issues must be considered that might ameliorate implementation challenges.

1. Pilot in one site prior to a full implementation in a region.
2. Comprehensive training of staff (see Gendreau's paper).
3. Limiting correctional officer authority. That is, permit them to issue tokens as rewards, with a specified number yielding enhanced status; but only permit tickets to be handed out as a sanction. Only the review committee can aggregate sanctions (tickets) and determine a change of status. If the incident is sufficiently problematic, then staff should use the disciplinary system.
4. Consider a pilot that provides some flexibility for offenders in terms of selecting from a menu of incentives. This is operationally challenging but may actually enhance the salience of the incentive model.
5. Meet with the inmate committee (although Gendreau's unpublished research is telling).

*Pilot research*

There are several research questions and possible pilot studies that emerge from this review.

1. Identification of offender incentives
  - a. Empirical investigation
  - b. Focus groups
2. Development of an offender engagement index
  - a. Use existing OIA items
  - b. Develop a new assessment protocol
3. Further refine the utility of the motivation index. At present it suggests a significant number of offenders could more readily engage in their correctional plan, although the goal may be slightly different at medium and maximum security.

*Security level requirements – number of levels*

It remains to be determined the preferred number of levels. Certainly there would be parsimony to use only 2 levels (engaged or not engaged) but this requires more consultation and consideration. At medium security it seems that an argument could be made for 3 levels. As the greater number of offenders is at medium security, the implications are fairly significant. The upcoming report on the GPPM should shed some light on this issue. Certainly, motivation is an insufficient index of correctional plan engagement, as measured in OIA/DFIA.

**Final Comments**

The consultations were intended to provide perspective regarding this area but it is conceded that much work remains to be done. In many respects more questions were raised than

answered. I believe reframing the question from institutional adjustment to that of correctional plan engagement is a prudent step. Also, consultations with the NPB might be helpful to determine what the major reasons are for negative decisions. Such information could further inform the utility of the proposed incentive model and determine if it might expedite discretionary release.

Throughout this review, it has been assumed that the primary goal of the proposed behavioural management system was to increase offender engagement in programming (versus to reduce problem behaviour). Not explicitly stated but perhaps worth brief consideration is that increased engagement is a form of accountability. Given that a goal of corrections is rehabilitation, then research that focuses on offender success (i.e., crime desistance) might profitably be considered as part of an accountability framework. In this manner CSC could develop a strategy to increase engagement rather than focus on a small proportion of offenders and their misbehaviour. Bridging prisons and community corrections would introduce an opportunity to investigate the proximal signs of success (i.e., competencies and personality constructs related to crime desistance) and train staff to support such efforts by offenders, thereby enhancing public safety. This is an area of research being pursued in my laboratory and something my students and I would welcome to discuss further with CSC.

My final thought is that despite initial optimism in the promise of an incentive system that might differentially and meaningfully reward offenders for their positive behaviour, I am sadly guarded regarding whether such a system could be consistently implemented in an agency as large as CSC without falling victim to many of the challenges of the United Kingdom experience.

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## Appendix A

## 1 Behavioural Rating of Offender Engagement

Please rate the participant from 0 to 2 on the following general offender competencies. A rating of 1 indicates that the participant somewhat displays the given behaviour. You must score 0, 1, or 2; you cannot assign partial ratings. Where possible, ratings should be completed after 1-2 sessions to ensure sufficient awareness of the offender. Consultation with other staff (PO, CO) is recommended but not essential.

**1. Ability to interact with other offenders**

<b>2</b>	Easily interacts with other offenders, mingles with others, is sociable, gets along with others. Is neither overly aggressive nor withdrawn.
<b>1</b>	Generally gets along with most other offenders. Has some minor conflicts with some offenders.
<b>0</b>	Generally difficult to be around and doesn't get along with other offenders. Has major difficulties even in daily interactions.

**2. Ability to follow rules**

<b>2</b>	Readily follows rules and guidelines without complaining to staff or other offenders. Doesn't need to be reminded of expectations.
<b>1</b>	Generally follows rules but sometimes complains to staff or other offenders. Occasionally needs to be reminded of expectations.
<b>0</b>	Generally doesn't follow rules. Frequently challenges staff regarding rules and expectations. Verbally critical of rules when in a group of offenders.

**3. Respectful of staff**

<b>2</b>	Consistently respectful of <u>all</u> staff (work, programs, security, case management, administrative) in terms of verbal interactions and behaviour.
<b>1</b>	Generally respectful of staff (work, programs, security, case management, administrative) in terms of verbal interactions <u>or</u> behaviour.
<b>0</b>	Generally disrespectful of staff in terms of verbal interactions and behaviour (demanding, demeaning, rude, excessive use of profanity, invades personal space).

#### 4. Respectful of other offenders

2	Consistently respectful of <u>all</u> offenders in <u>all</u> areas of institution (work, programs, recreation, on range or unit) in terms of verbal interactions <u>and</u> behaviour.
1	Generally respectful of offenders in <u>most</u> areas of institution (work, programs, recreation, on range or unit) in terms of verbal interactions <u>or</u> behaviour.
0	Generally disrespectful of offenders in terms of verbal interactions and behaviour (demanding, demeaning, manipulative, invades personal space).

#### 5. Engagement in Correctional Plan

##### a) Stated motivation

2	Offender is self-motivated, accepts overall Correctional Plan, states he/she wants to follow plan.
1	Offender may not fully accept overall assessment and is ambivalent about participating in Correctional Plan.
0	Offender strongly rejects the need for change / is unwilling to participate in recommended programs or other interventions.

##### b) Consistency

2	Offender states motivation to follow plan and demonstrates behaviour consistent with this (attends group, is not late for work placement, completes homework, is respectful to staff and other offenders).
1	Offender states motivation to follow plan, but demonstrates behaviour somewhat inconsistent with this (skips some group or work-days, is sometimes late for work placement, fails to complete homework, is sometimes disrespectful to staff and other offenders).
0	Offender states motivation to follow plan, but demonstrates behaviour completely inconsistent with this (skips most group or work-days resulting in being fired from job or expelled from group, is frequently late for work placement, doesn't complete homework, is often disrespectful to staff and other offenders).

##### c) Acceptance of responsibility

2	Offender fully accepts his responsibility for his criminal behaviour and his/her need to make changes for successful reintegration.
1	Offender accepts some responsibility but minimizes and/or rationalizes.
0	Offender rejects any responsibility, blaming others and circumstances.



## 6. Gang affiliation

<b>2</b>	Offender rejects involvement with gangs and can associate with offenders regardless of gang membership.
<b>1</b>	Offender maintains some gang affiliation through association, but is not actively wearing colours or recruiting others to join.
<b>0</b>	Offender actively demonstrates gang membership in terms of clothing and associations. Involved in the recruitment of others to join or convincing of members to stay.

## 7. Predatory behaviour

<b>2</b>	Offender is not manipulative, nor exploitative of other offenders or staff. Not interested in using others for own interests.
<b>1</b>	Offender maintains some criminal values and attitudes (e.g., only the strong survive) but does not overtly prey on others for his/her own gain.
<b>0</b>	Offender extorts or manipulates others for personal gain (canteen, money, favours) with either little concern for their needs or a sense of entitlement.

## 8. Substance abuse

<b>2</b>	Regardless of whether this has been a problem in the past, offender is uninvolved in illicit substance use and is willing to submit to voluntary urinalysis.
<b>1</b>	Offender generally remains free of substance use. Infrequent positive urinalysis for soft drugs or alcohol. Refuses to submit to random urinalysis.
<b>0</b>	Offender frequently tests positive for substance use (or infrequently for hard drugs). Reportedly active in drug subculture. Refuses to submit to just cause urinalysis

## Appendix B

### 2 Overview of Effective Staff Skills

Empathic (reflects awareness and concern for others)

Authoritative, not authoritarian (reflects expertise not authority)

Directive (active, leads discussions, set goals)

Fair (balances the rights of all parties)

Respectful (doesn't talk down to offenders)

Reinforcing (supports and encourages positive efforts and accomplishments)

Communication skills (has good interpersonal and verbal skills)

## Appendix C

**Rewards & Punishers**

(unpublished offender ratings; Goddard &amp; Gendreau, 1992)

**Rewards (listed from most to least rewarding)**

Parole	_____
Temporary absences	_____
Family visits	_____
Family days	_____
Pay raises	_____
Better jobs	_____
Programs	_____
Special food	_____
Able to decorate cell	_____
Better recreation	_____

**Punishers (listed from most to least punitive)**

No family visits	_____
Transfer to higher security	_____
Being in a double cell	_____
Failure to earn remission	_____
Pay cuts	_____
Solitary confinement	_____
Loss of food	_____
Earlier lock-up	_____
Earlier wake-up	_____

## Appendix D

### Behavioural Rating Scale of Desistance Competencies

(Serin & Hanby, 2009)

Please rate the participant from 0 to 4 on the following general offender competencies. A rating of 1 indicates that the participant somewhat displays the given behaviour. You must assign a score based on these levels; you cannot assign partial ratings. Where possible, ratings should be completed after 1-2 sessions to ensure sufficient awareness of the offender. Consultation with other staff (PO, CO) is recommended but not essential.

#### 1. Need for change

<b>4</b>	Fully appreciates the need for change in order to succeed, including internal mechanisms (i.e., locus of control) and external factors (i.e., antisocial associates). Recognizes that changes, and not just intentions, are required to desist from criminal behaviour
<b>3</b>	Recognizes the need for change and feels some progress has been made regarding his understanding of what is required to avoid crime in the future.
<b>2</b>	Certainly recognizes a need for change, but with some ambivalence and uncertainty. Generally, stated intentions to participate in programs.
<b>1</b>	In general, when pressed, concedes that perhaps a change in his thinking and/or behaviour might result in reduced crime in the future.
<b>0</b>	Resistant and opposed to change. Generally feels any problems are not his and he is oppositional to suggestions to the contrary.

#### 2. Knowledge

<b>4</b>	Clear demonstration of <u>both</u> new knowledge <u>and</u> skills in terms of understanding and managing his or her risk situations.
<b>3</b>	Reasonable demonstration of <u>either</u> improved knowledge <u>or</u> skills in terms of understanding his or her risk situations.
<b>2</b>	Somewhat aware with some understanding of their unique risk factors. Less clear they have the skills to apply this basic understanding.
<b>1</b>	Can provide simplistic awareness and fairly general understanding of risk factors but clearly has not internalized this information (i.e., simply a change in vocabulary).
<b>0</b>	Completely unaware of what it takes to understand and manage his or her criminality.

### 3. Cognitive flexibility

<b>4</b>	Fully demonstrates the ability to analyze problems, considers short and long-term consequences and multiple strategies in the event the initial effort is unsuccessful
<b>3</b>	Demonstrates some cognitive flexibility. Some progress has been made in the ability to generate alternatives when initial efforts are unsuccessful.
<b>2</b>	Clearly able to solve problems, but does not consider short- or long-term consequences or alternative solutions.
<b>1</b>	Limited ability to solve problems, but requires considerable assistance.
<b>0</b>	Does not demonstrate any problem solving abilities.

### 4. Inhibitory control

<b>4</b>	Fully appreciates that criminal behaviour is a here and now phenomenon that ignores the consequences. Ability to inhibit impulsive acts and cope with risky situations. Ability to recognize the need for pre-emptive avoidance and/or coping strategies.
<b>3</b>	Recognizes that criminal behaviour involves short-term benefits but long-term negative consequences. Ability to manage disinhibitors.
<b>2</b>	Can identify negative consequences that come with poor self-regulation but limited ability to manage disinhibitors.
<b>1</b>	Somewhat aware of the need to self-regulate but limited evidence that this is possible. Disinhibitors such as addictions, antisocial attitudes/peers and impulsivity are present.
<b>0</b>	Completely governed by the moment and a very poor recognition and ability to regulate their attitudes and behaviour.

### 5. Personal Accountability

<b>4</b>	Fully demonstrates a sense of humility and community that connects their attitudes and behaviours to others. Sees the need to be responsible and accountable both in terms of internal mechanisms (i.e., self control) and external factors (i.e., prosocial associates).
<b>3</b>	Demonstrates some humility and community. May view the need to be responsible and accountable solely in terms of internal or external factors.
<b>2</b>	Does not display egocentric sense of entitlement. Shows some humility or community, but may be for artificial reasons
<b>1</b>	Diminishing egocentricity, sense of entitlement, justifications for his behaviour. Does not display any humility or community.
<b>0</b>	Egocentric sense of entitlement used to justify his behaviour.