

# FORUM

On Corrections Research

December 2003, Volume 15, Number 2

## Featured issues

Performance  
Measurement

Perspectives

Reporting

Effectiveness



Correctional Service  
Canada

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Canada

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FORUM reviews applied research related to corrections policy, programming and management issues. It also features original articles contributed by staff of the Correctional Service of Canada and other international researchers and practitioners.

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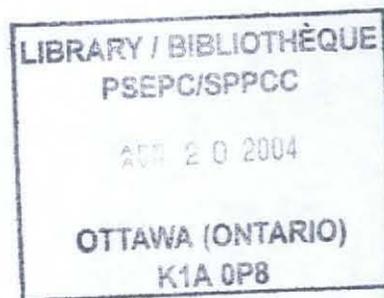
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# FORUM

on Corrections Research



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# Performance assurance in Canadian federal corrections

Douglas McMillan<sup>1</sup>

Performance Management, Correctional Service of Canada

**A**ny well performing organization is constantly striving to improve its performance. While every staff member has that as a responsibility in the context of their duties, the Performance Assurance (PA) Sector's primary role is to independently measure Correctional Service of Canada's (CSC) performance and provide the results to staff and managers so that action can be taken to make improvements. In order to ensure that the results will be objective and seen to be objective, the Performance Assurance Sector has recently become a corporate function, whose staff are located in regional locations as well as at National Headquarters.

## Discussion

**P**erformance Assurance implements its mandate in a number of different ways. The Sector is responsible for the traditional statistical measurement and reporting of performance. This includes the preparation of CSC's performance report to Parliament and Canadians, the Departmental Performance Report. A related role is to develop information-based tools that make information, including performance information, readily available to staff and managers to help them to manage their work. Several of these tools are described elsewhere in this issue: RADAR (Reports of Automated Data Applied to Reintegration), CRS (the Corporate Reporting System) and PRIME (Portal on Results, Information, Measurement and Evaluation).

In addition, the Sector is responsible for Internal Audit, Investigations of incidents in the community and institutions and Program Evaluation and Review. These functions are focused on assessing how well CSC is doing from a number of different perspectives and alerting management about areas that need improvement.

Also, PA is responsible for managing the process of accreditation of correctional programs and the sites that deliver them. Program and site accreditation is discussed elsewhere in this issue, but briefly, the accreditation of programs and sites ensures that only programs that meet international standards for good programming are provided, and that they are delivered well.

The achievement of results related to its mandate and mission is perhaps the most important component of CSC's performance measurement, but there are

other important components. It goes without saying that compliance with the *Corrections and Conditional Release Act* (CCRA) and all other applicable legislation is mandatory, and must be assured. However, it is also important to ensure that CSC policies and processes are efficient and effective and that they are complied with. These policies and processes are developed and implemented to ensure that CSC operates consistently across Canada and in accordance with the approved standards and approaches that have been determined to be those most likely to result in success. The achievement of good correctional results involves the management of risk, and the ability to explain to Canadians how this risk is managed. Also, demonstrating the consistent application of approved risk management approaches is crucial to retaining public support when things go wrong.

It is also important to measure performance in the corporate service areas such as technical services, food services, institutional services etc. Without performance measures of some sort, it is not possible to determine whether improvement is required.

Any discussion of performance assurance or performance measurement must recognize that the Correctional Service of Canada is an agency in the federal Public Service of Canada. As a federal agency, CSC is not only responsible for carrying out its correctional mandate, but in addition, is responsible to contribute to the achievement of the broader objectives of the Government of Canada, as well as to comply with all government policies and directions.

In arriving at a conclusion about CSC's overall performance it is necessary to assess all of these different dimensions. I would like to comment on two important areas: correctional results, and public service results.

## Correctional results

The ultimate outcome for CSC is its contribution to public safety. The *Corrections and Conditional Release Act* requires that during the sentence the safety of the public, staff and offenders is the paramount consideration both while offenders are in institutions and while under supervision in the

community. In order to demonstrate its results in managing offenders who are under supervision in the community, CSC reports on the proportion of all offenders who are on some form of conditional release (day parole, full parole, statutory release) each year, who are convicted of an offence, with a breakdown of violent and non-violent offences. To complete the picture, CSC reports on incidents occurring in institutions including escapes, deaths, disturbances, assaults on staff and assaults on inmates.

Our mandate requires us to prepare offenders for safe reintegration into the community. CSC reports on the successful reintegration of offenders into the community after the completion of the sentence by determining what proportion of federal offenders have not been convicted of another offence within a specified period after the end of the sentence. Currently, the follow-up period is two years, however, as additional analysis is performed, the follow-up period will be extended. The analysis looks at all re-convictions whether the new offence results in a provincial sentence or another federal sentence.

Offenders who receive indeterminate or life sentences do not have an end to their sentence. Therefore, a longitudinal follow-up from release date is conducted to determine successful reintegration of these offenders.

It is important to state that the results measured in this way can be affected by factors outside of CSC's control. For example, there are many reasons why an ex-offender may commit another offence. It is not reasonable to expect that CSC can be responsible for all behaviour of offenders after their sentence is completed, nor during their sentence for that matter. However, CSC expects that if it is doing a good job, that it will be eventually reflected in these results.

The reader is referred to the Departmental Performance Report for 2002/2003 at [http://www.tbs-sct.gc.ca/rma/dpr/02-03/CSC-SCC03D\\_e.asp](http://www.tbs-sct.gc.ca/rma/dpr/02-03/CSC-SCC03D_e.asp) for specific results information in all of the above areas.

There are a myriad of other measures of success, including compliance with policies and processes. All of these results support the achievement of the correctional results described above.

### Public Service results

The Treasury Board of Canada has developed and published a comprehensive Management Accountability Framework that describes its expectations of deputy heads in the management

of their organizations. It reflects the Government management objectives that all federal departments and agencies are expected to meet.

For each component this framework describes the expectations, indicators of success and specific measures that will be used. More information can be obtained at [http://www.tbs-sct.gc.ca/maf-crg/index\\_e.asp](http://www.tbs-sct.gc.ca/maf-crg/index_e.asp).

There are ten components in this framework:

1. Governance and Strategic Direction
2. Public Service Values
3. Results and Performance
4. Learning, Innovation and Change Management
5. Policy and Programs
6. People
7. Citizen-Focused Service
8. Risk Management
9. Stewardship
10. Accountability

This framework has become an umbrella framework that incorporates other management improvement initiatives, such as modern comptrollership, active monitoring and risk management.

CSC is in the process of integrating this framework into its management processes, including performance measurement. The ongoing commitments for Executives in CSC are based directly on this framework.

Current performance indicators are already available in CSC for a number of the elements and we will be ensuring that we have indicators for all of them. The indicators will be based on those established by Treasury Board, with interpretation and modification to relate them directly to CSC.

### Conclusion

Performance measurement in CSC is complex. It must address correctional and non-correctional activities, as well as consider its contribution to government-wide priorities. It can be difficult to interpret performance information and even more difficult to know what causes changes in performance. Managers must know their results if they are to take appropriate action to improve them. ■

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# Corrections and Conditional Release Statistical Overviews

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*The idea to publish the Corrections and Conditional Release Statistical Overview (CCRSO) occurred in the summer of 1997, just after the appointment of a new Solicitor General. In keeping with the usual process, the briefing of the new Minister involved the preparation of briefing books as well as oral briefings by officials from the Department and the Agencies on the various aspects of the Portfolio of the Solicitor General. Inevitably, the briefings included a variety of statistics. The Deputy Solicitor General, who reviewed the material that went forward to the Minister and attended most of the information sessions with the Minister, was struck by the number and range of statistics as well as some apparent inconsistencies among them. Would it be possible, he wondered, to prepare a coherent set of statistics on key information on the corrections system, and present these statistics in a format that would be readily understood by someone who was not an expert in the field?*

## Action taken

In response to the Deputy Solicitor General's question, a committee, now known as the Portfolio Corrections Statistics Committee, was formed in September 1997 with a mandate to establish a standard set of key statistics on corrections and conditional release that would be used as a common source of statistical information within the Portfolio and in external communications. The committee includes representatives from the Department of the Solicitor General, the Correctional Service of Canada, the National Parole Board, and the Canadian Centre for Justice Statistics. I was responsible for establishing the committee, and have served as Chair of the committee since its inception.

## Operating principles

In setting out its work, the committee adopted five operating principles to guide the compilation of statistics. The statistics should:

- 1) address all major aspects of the system;
- 2) be based on the most valid and reliable data available;
- 3) be presented in a format that would be understandable to a lay audience;

- 4) be produced in a standard way on a regular basis; and
- 5) be easily accessible for internal use and external audiences.

## CCRSO publication

The first issue of the CCRSO appeared in the fall of 1998, and it has been produced on an annual basis since that time. The preface explains that the document is intended to provide a statistical overview of corrections and conditional release within the context of trends in crime and criminal justice. It also informs the reader that the CCRSO differs from typical statistical reports in that it is designed to present statistics in a "user friendly" way that will be understood by a broad audience. The following five features illustrate this point. First, the graphs in the document are uncluttered, and under each one there are a few key points that are designed to assist the reader in extracting the central information from the graph. Second, on the page following each graph (i.e., overleaf) there is a table of numbers that correspond to the visual representation and, in some cases, provides a longer series than depicted in the graph. Third, rather than using conventional headings for statistics (e.g., crime rates by province/territory) the title for each graph and table aims to inform the reader about the matter at hand (e.g., crime rates are higher in the west and highest in the north). Fourth, footnotes are kept to a minimum, that is, only where they are considered to be essential for the reader to understand the statistics. Finally, the source of the statistics is indicated under each graph and table in order to assist the reader in accessing more information if desired.

The CCRSO is divided into five sections. Section "A" provides statistics on crime and the criminal justice system, and is intended as a context for the more focused sections that follow. Section "B" contains statistics related to corrections administration, i.e., the utilization of financial and human resources. Section "C" presents statistics describing the offender population, including counts, admissions, demographics, characteristics, and status. Section "D" focuses on conditional release, both in terms of the granting and timing of conditional releases as

well as the outcomes of day parole, full parole and statutory release. Section "E", which is titled "Statistics on Special Applications of Criminal Justice", includes information on detention cases, judicial reviews of parole ineligibility for offenders serving life sentences, Dangerous Offenders, long-term supervision orders and pardons.

Although the CCRSO is designed to be comprehensive inasmuch as it addresses the major aspects of the functioning of the corrections and conditional release system, it is not intended to be exhaustive. It is properly named an "overview", and does not purport to be a complete compendium of statistics on correctional operations. Over the years, the committee has debated whether and how to expand the document. The result is that there has been some progression in the content, although the fundamental structure has not been altered.

### Client feedback

In the second and subsequent issues of the CCRSO, a questionnaire was included asking readers whether they found the document useful, if there was anything in the presentation that was unclear, what additional topics they would like to see covered, and inviting general comments. The feedback has been overwhelmingly positive. The suggestions for additional topics have shaped the evolution of the CCRSO. Beginning with the year 2000 issue, gender

differences have been highlighted in statistics throughout the document. In 2001, we added some graphs and tables to provide more comparisons between Aboriginal and non-Aboriginal offenders. Statistics on the racial composition and religious identification of the federal offender population were added in 2002. From 1998 to 2002, the total number of graphs/tables increased from 35 to 48. This reflects the measured pace of growth in the document.

The CCRSO is published in the fall (November) each year. The document is posted in "pdf" format on the Web site of the Department of the Solicitor General (<http://www.sgc.gc.ca>) for easy public access. In addition, a limited number of copies are printed for distribution within the organizations of the Portfolio.

In summary, the CCRSO occupies a particular niche in performance measurement reporting. It presents an overview of statistics on corrections and conditional release, along with trends in the broader criminal justice system, in a format that can be readily understood by a lay audience. Accordingly, it serves as an important vehicle for informing the public on the major trends in the operations of corrections and conditional release. ■

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# Measuring what prisons do: A synopsis

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*The opinions expressed in this article are those of the author and are not intended to represent the policy of the National Institute of Justice or the United States Department of Justice.*

## Introduction

Prisons are complex organizations. They serve many purposes, and have a multitude of symbolic meanings to diverse audiences. How do you create a prison performance yardstick that encompasses both this inherent complexity and the multiplicity of purpose and interest? These are some of the questions raised in our forthcoming book *Prison Performance: Laying the Groundwork to Compare Public and Private Prisons*,<sup>2</sup> co-authored by Gerald Gaes, Scott Camp, Julianne Nelson, and William Saylor. This book is a culmination of research conducted by the co-authors on the problem of prison performance measurement. Some of this work was a byproduct of our interest in comparing publicly and privately operated prisons while serving as either employees or contractors studying this topic for the Federal Bureau of Prisons. In writing this book, however, we have tried to place our analysis in a broader context. The book is also intended to be a paradigm for the performance measurement of any government agency, and a resource for anyone interested in methods to evaluate whether a government service should be privatized. What follows is a chronological presentation of the book's contents.

## Performance measurement perspectives

In chapter 1, we concern ourselves with the purpose of prison. This, we argue, is the place to begin if a system is to have a coherent framework for performance measurement. In this chapter, we represent the deliberation of other scholars who have offered different perspectives on either the purpose of the criminal justice system in general, or prison in particular. We consider arguments by John DiIulio, James Q. Wilson, and Charles Logan. However, we describe Logan's proposal in great detail, since we believe his work was seminal in outlining the logical steps leading from prison purpose to prison performance measurement. While we reject Logan's thesis for what prisons ought to do, we give him credit for his thoughtful analysis of the problem. Instead, we argue that jurisdictions must define their own purpose, and this is usually expressed in the agency's mission. However, once

defined, it is incumbent upon jurisdictions to translate missions into objectives, and objectives into measurable dimensions. If one of the missions of a prison system is to promote successful offender reintegration, then that should be transformed into objectives such as increasing the offender's skills. This, in turn, must be expressed as measurable performance indicators, such as the actual level of skill achievement. In this chapter, we also take up recidivism as a key performance measurement indicator. We explore the complexity and difficulty in measuring recidivism at both the *individual* and *institutional* level. Measuring individual recidivism has many inherent difficulties, but we also consider the additional intricacies in measuring prison recidivism rates. We consider recidivism to be such an important dimension of prison performance that we take up the issue again in a later chapter.

## Audit

In chapters 2, 3, 4, and 5 we consider different ways prison jurisdictions can monitor prison performance by focusing on numerous approaches that have been used by a variety of jurisdictions. In chapter 2, we discuss the prison audit. In many jurisdictions, the governing agency will send in teams of inspectors or auditors to examine the way a particular prison function is being conducted, and to determine whether or not the prison is in compliance with policy and law. We show how these kinds of procedures can easily be translated into hard scientific data by focusing on a model prison security audit developed with the support of the National Institute of Corrections.

## Assessment

In chapter 3, we consider "qualitative assessment." This is intended to have a broad meaning encompassing different kinds of reports or presentations that do not necessarily include large amounts of data or detailed analyses. Agencies often conduct "after action" reports when a significant event has occurred, such as a prison riot, or a particularly egregious prison homicide. There are

also many scholarly examples in the literature, books devoted to understanding the broad context and social history of a prison. Jim Jacob's book on the Stateville prison in Illinois is a classic example. These kinds of broad, often historically based, treatments give texture and contour to the understanding and analysis of prison performance.

### Performance measurement

Chapter 4 is devoted to behavioural performance measurement. Broadly conceived, this is analysis based on the recording of an inmate's behaviour. Sometimes these data are collected in the normal, day-to-day context of prison operations. Other times these data are collected using special assessments for a particular study. One of the most common forms of behavioural data collected in prison is misconduct incident reports. While such data may have the appearance of objectivity, we discuss why the context of behavioural measurement must be understood before we can make conclusions about its veracity.

Chapter 5 discusses survey measurement as a performance tool. Both the Correctional Service of Canada and the Federal Bureau of Prisons have conducted large scale surveys of both inmates and staff. These data can envelop any topic from the most sensitive to the mundane. In this chapter, we show how such data can provide a great deal of insight into prison performance.

In both chapters 4 and 5, we also delve into the statistical and methodological complexities of measuring performance at the level of the organization — in this case, the prison. New statistical tools have been developed and the software is now widely available to conduct multilevel analysis of data. These tools have been used to investigate school achievement, hospital quality, and prison performance. The breakthrough in these techniques is that they allow the investigator to take into account features of the organization and the individual simultaneously. To measure the performance of a hospital, the analyst must account for the individual characteristics of the patients. When measuring schools, you need to account for different compositions of students. Prison performance can understandably vary with the attributes of individual inmates. We explain this methodology from the perspective of an unsophisticated reader. Our intention is to make this understandable to the policy maker, the administrator, and the student. There are many technical explanations of multilevel models, and in the book we refer to some of these in our discussion. We also demonstrate how the results of these complex multilevel models can easily be depicted in

an assortment of graphic forms. These depictions show how institutions rank from best to worst on prison performance dimensions.

### The cost of prisons

Chapters 6 and 7 are devoted to the costing of government services and some of the economic theory behind the assumed efficiencies in prison privatization. These chapters rely heavily on the work of one of our co-authors, Julianne Nelson, who has spent a great deal of her career studying cost benefit and cost analysis. She has also conducted studies of the relative costs of publicly and privately provided prison operations and prison medical services. We incorporate Julie's prescription for how to do a cost analysis of private and public provision. We also consider the economic theory lurking behind the private-public debate about any government service, but particularly prison services. We discuss the work of economic theorists who have taken different sides of the argument — those that believe private provision is inherently more efficient, and those who argue that there are some services that may not produce greater efficiencies when privatized. In chapter 7, we also show how cost can and should be incorporated into the analysis of prison performance. This is particularly decisive when comparing publicly and privately operated prisons. While one prison may be less expensive than another, what happens to quality when cost goes down? In this chapter, we also focus on labor. By far, the greatest proportion of prison expenses comes from the cost of correctional workers. In this context, we raise the possibility that the private provision of prison services depends on the "McDonaldization" of prison work. This is the idea, borrowed from the organizational sociology literature, that prison work can be turned into highly regimented and specific routines analogous to the way the McDonalds restaurant chain has developed its service. This makes labor more easily replaceable, or fungible as the economist would argue. But, what does this do to prison quality? We discuss the evidence.

In chapter 8, we raise the possibility of making performance measurement comparisons across jurisdictions. Can we compare the performance of the Correctional Service of Canada with the Federal Bureau of Prisons? Can we compare the quality of work conducted by the departments of corrections in Texas, California, and Michigan? While these comparisons are fraught with problems, we also recognize that there are some events and processes that may only be understood, if, and when, we perform these kinds of analyses.

## Recidivism vs. desistance

Chapter 9 returns to the measurement of recidivism by embedding the topic in an exciting area of criminology called the criminal life course literature. This kind of research is being conducted in Canada, the United Kingdom, Germany, the United States, and other countries. The perspective is developmental and tries to account for the occurrence of criminal propensities at some time in the life course of the individual. Some researchers are even studying prenatal and perinatal causes of criminal propensity. Life course work also examines the factors that lead to the process of criminal desistance — the termination of a criminal career. We give a brief, broad overview of this exciting new work, and show how it may be fundamental to an understanding of recidivism and how we can incorporate these ideas into prison performance.

## Summary

In chapter 10, we take all of the ideas from the previous chapters and show precisely how one can measure all of the prison functions. We also show how these can be incorporated into user-friendly tools for administrators. Then in chapter 11, we broaden the horizon of this work by showing how

prison performance fits into the larger framework of government performance and accountability. We do this by reviewing the most recently published literature in the field of public administration. We demonstrate how the prior 10 chapters can be considered a paradigm for investigating the performance and cost efficiency of any government service, from collecting trash to providing social welfare. In this chapter, we also explore unintended consequences of performance measurement, including those that may undermine the accuracy of the system.

The last chapter summarizes the major themes of the book and lays out an agenda for future work. Our intent in writing this book was to demonstrate how it is possible to measure prison performance, to show how this paradigm generalizes to any government service, and to point out that most of the prior analyses of prison privatization have been either poorly conceived or poorly executed. ■

<sup>1</sup> 13505 Ivy Way, Bowie, MD 20715

<sup>2</sup> Gaes, Gerald G; Camp, Scott D; Nelson, Julianne, & Saylor, William G. *Prison Performance: Laying the Groundwork to Compare Public and Private Prisons*, Alta Mira, CA: AltaMira Press, forthcoming.

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# Correctional research in support of key strategic challenges and outcomes

Larry Motiuk<sup>1</sup>

Research Branch, Correctional Service of Canada

Each fiscal year an approved program of corrections research related to policy, programming and management issues is conducted by the Correctional Service of Canada (CSC). While the main goal of the Service's research efforts is to contribute to public, staff and offender safety, it does so in partnership with other sectors at National Headquarters and administrative regions of the Service, other government and non-government organizations as well as academia. Active research collaborations are deemed essential to the fulfillment of the Service's mission and mandate.

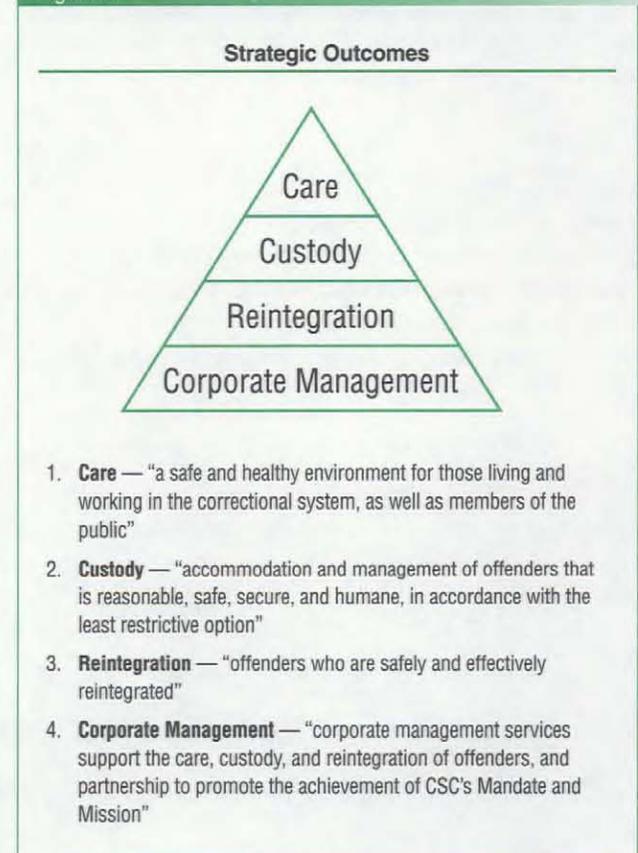
This article offers an overview of the role and mandate of a research function for a correctional agency. More specifically, it describes how a comprehensive and integrated program of research is developed, then approved and subsequently carried out in support of key strategic challenges being faced by the Service. Examples of research initiatives underway are provided as well as some preliminary results that are being translated into correctional practice. Finally, a framework is presented that may possibly guide future measurement efforts towards the realization of a major objective for the Service — the safe and effective reintegration of offenders. For the three phases of the correctional process (admission, institutional placement and community supervision), reintegration activities are highlighted, anticipated results are hypothesized and measures offered.

The essential framework that guides the operational research efforts of the Service include the *Corrections and Conditional Release Act*, the *Mission Document of the CSC*, and the *Estimates Part III — Report on Plans and Priorities*. To date, the activities of the Research Branch of the CSC have been focused generally in this fashion. However, a number of other major research initiatives are undertaken throughout the fiscal year at the request of the Service's Executive Committee (EXCOM) as well as the National Headquarters Management Committee because of their obvious relevance to important operational initiatives.

Key strategic challenges facing CSC include the following: changing offender profile, over-representation of Aboriginal offenders, need for community capacity to support offenders under supervision and beyond sentence completion to prevent re-offending, and need to realign and

transform corporate practices and systems to meet these new demands in a fiscally responsible manner. In order to address these challenges the Service has identified four strategic outcomes (see Figure 1) to focus on over the next three years (2003/2006):

Figure 1



In support of the realization of these key strategic challenges outcomes, a 2003–2004 *Research Program* was designed and approved by EXCOM to provide the Service with accurate research-based information and analysis that can be used to facilitate operational planning and decision making. Consequently, the 2003–04 *Research Plan* outlines a list of national research projects directed towards advancing the Service's mandate related to crime prevention and public protection. Moreover, an inventory of regional research initiatives by field practitioners is also provided that lists projects in progress or under consideration.

## Research plans for 2003–2004

In general terms, the following highlights the Service's research plans for 2003–2004:

*Conduct research that contributes to the management of addictions and the harmful consequences of drug use in support of Canada's National Drug Strategy;*

*Engage Aboriginal communities in Aboriginal focused corrections research;*

*Develop a protocol for assessing the characteristics and behaviours associated with Fetal Alcohol Syndrome/Fetal Alcohol Effects (FAS/FAE), the types of interventions required, and staff training needs;*

*Provide more research on targeted treatment to respond to offenders with mental health problems;*

*Assist in developing approaches to better integrate security, case management, and programming for offenders presenting similar risk/needs profiles;*

*Examine operational strategies to control the supply and reduce the demand for drugs;*

*Design and test of a climate indicators and profiling system to improve prediction, prevention, and management of critical incidents and emergencies;*

*Advance new research on strategic intelligence approaches to address the risks posed by offenders;*

*Explore the efficacy of the accommodation strategy for federally sentenced women;*

*Review community-based accommodation measures to help ensure the safe and timely reintegration of offenders;*

*Initiate research directed toward an integrated security, case management, and programming approaches targeted to smaller groups of offenders who share similar needs (in institutions, through transition to the community);*

*Carry out research and surveys on citizen engagement;*

*Review studies on restorative justice approaches in corrections;*

*Make available research that enhances processes and practices that will ensure a safe, healthy, and supportive workplace, and the effective management of CSC;*

*Offer research support to staff to manage the challenges of the correctional environment; and*

*Support Canada's foreign policy priority in human rights and criminal justice matters through providing research expertise and helping establish safe and humane corrections.*

## Examples of research to action

### 1. Contributing to institutional and community safety:

A research-based *Climate Indicator and Profiling System* (CIPS) has been developed and implemented across the Service's maximum-security institutions. Comprehensive information is being gathered during field trials to allow institutions to track how their population profiles are changing, so that they can better identify some of the factors that are most likely associated with institutional climate risk and make strategic changes. In addition, CIPS is responding to a recognized need to collect and track standard daily climate indicators of immediate institutional vulnerability, apart from longer term trends, in order to facilitate more immediate population management strategies. Outcome results are not yet available.

A High Intensity Substance Abuse Program (HISAP) has been developed, implemented and internationally accredited. Research results from the pilot programs showed that offenders who completed HISAP demonstrated a 69% reduction in institutional misconduct, a 19% reduction in re-admissions to prison and a 50% reduction in new convictions.

### 2. Contributing to effective Aboriginal corrections:

In collaboration with a number of First Nations, Métis and Inuit organizations, a series of research studies have been conducted resulting in improved capacity to conduct Aboriginal-specific research within Aboriginal communities and raising operational awareness of the importance of delivering services that address the needs of different Aboriginal groups.

### 3. Contributions to gender responsive assessment and programming:

The Service's classification tools used to allocate necessary controls and program resources for women offenders have been validated and re-validated for initial security placement, security reclassification, risk and needs assessment, reintegration potential assessment and reassessment. These offender classification instruments are critical to the effective and efficient risk management of women offenders while under federal sentence. Research-based gender responsive interventions (Dialectical Behavior Therapy, Psychosocial Rehabilitation, Spirit of a Warrior, Circles of Change) have been developed and implemented across the Service. Outcome results are not yet available.

A research-based Women Offender Substance Abuse Program (WOSAP) has been developed and implemented across the Service. The Centre for

Addiction and Mental Health (CAMH) is working in collaboration with the Service's Addictions Research Centre (ARC) on this innovative program designed specifically to address the substance abuse needs of women offenders. Outcome results are not yet available.

With key strategic challenges as varied and complex as those that confront CSC, applied research has to attempt to inform and influence in different ways and at many levels. Understandably, within an operational agency focused on public safety, there are limited resources that can be exclusively dedicated to the conduct of applied corrections research. Nevertheless, the ever-expanding set of operational questions necessitates research priority setting, coordination of efforts, effective integration, communication of findings and implementation.

### Reintegration — A research framework

Correctional service providers in collaboration with releasing authorities can and do affect the safe release of offenders into the community. The application of reintegration efforts should yield public safety dividends in terms of lower rates of incidents while in custody and criminal re-offending upon return to the community. Therefore, outcome questions flow logically from the three major

components of the reintegration process — *admission phase* (orientation, assessment, planning), *institutional phase* (programming) and *community phase* (supervision, programming, community service utilization).

Whenever reintegration research is being undertaken, comparative analyses are conducted in relation to a matched group based on specified criteria. If possible, attempts are made to match on admission date, sentence length, and level of risk and need. This approach has the effect of introducing in the research design controls for the following — *temporality, exposure and propensity*. As well, reintegration outcome measures may include but not necessarily limited to such areas as: cost(s), programming involvement(s), security incidents, release type, supervision performance and return/re-offending rates. Data are obtained from five main sources: cost centres, case files, timeline interviews, participant/staff feedback questionnaires, and the Service's Offender Management System (OMS).

The following three tables offer an overall reintegration research framework that provides a schematic representation of reintegration activities, anticipated results and measures.

Table 1

Reintegration Research — Admission Phase		
Reintegration Activities	Anticipated Results	Measures
Classifying Initial Security Level	<ul style="list-style-type: none"> <li>Offenders will be appropriately placed to the least restrictive measures of confinement commensurate with their institutional adjustment risk, escape risk, and public safety risk</li> </ul>	<ul style="list-style-type: none"> <li>Initial security level designations</li> <li>Placement distributions</li> <li>Override rates</li> <li>Security incident rates</li> </ul>
Profiling Reintegration Potential - At Intake	<ul style="list-style-type: none"> <li>Identification of early release candidates</li> <li>Establishment of case preparation priorities</li> </ul>	<ul style="list-style-type: none"> <li>Initial security level designations</li> <li>Release risk distributions</li> <li>Programming requirements at admission</li> <li>Reintegration potential distributions</li> </ul>
Developing Correctional Plans	<ul style="list-style-type: none"> <li>Case plans upon which release is predicated will be produced in a timely manner</li> </ul>	<ul style="list-style-type: none"> <li>Correctional plans completion dates</li> </ul>
Improving Institutional Program Motivation	<ul style="list-style-type: none"> <li>Accurately assessing offender motivation will help to target offenders for program participation and to establish release priority</li> </ul>	<ul style="list-style-type: none"> <li>Motivation levels</li> </ul>

Table 2

## Reintegration Research — Institutional Phase

Reintegration Activities	Anticipated Results	Measures
Increasing Institutional Program Participation	<ul style="list-style-type: none"> <li>• Assignment to programs where the need is identified</li> <li>• Case preparation time and delays reduced</li> <li>• Institutional program participation will improve institutional adjustment and likelihood of early release/post-release success</li> <li>• Reduced costs given economies of scale due to increase in participants</li> </ul>	<ul style="list-style-type: none"> <li>• Matching rates of needs to programs</li> <li>• Program participation rates/costs</li> <li>• Security incident rates</li> <li>• Discretionary release rates</li> <li>• Post-release success rates</li> <li>• Cost per participant</li> </ul>
Ensuring Institutional Program Completion	<ul style="list-style-type: none"> <li>• Completing programs will improve institutional adjustment and likelihood of early release/post-release success</li> <li>• Reducing the number of program non-completions or dropouts will reduce costs in terms of wasted programming resources and in depriving motivated offenders program opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Program completion rates</li> <li>• Security incident rates</li> <li>• Discretionary release rates</li> <li>• Post-release success rates</li> </ul>
Improving Institutional Program Performance	<ul style="list-style-type: none"> <li>• In-program outcomes or treatment gain will influence decisions to support early release, vary reintegration potential during incarceration and influence positive post-release adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Program performance ratings</li> <li>• Security incident rates</li> <li>• Discretionary release rates</li> <li>• Post-release success rates</li> </ul>
Moderating Administrative Segregation	<ul style="list-style-type: none"> <li>• Reduced placement in administrative segregation for disciplinary or voluntary reasons can improve reintegration progress and influence early release</li> </ul>	<ul style="list-style-type: none"> <li>• Non-voluntary segregation rates/reasons</li> <li>• Voluntary segregation rates/reasons</li> </ul>
Reclassifying Security Level	<ul style="list-style-type: none"> <li>• Reclassification and expeditious transfer of offenders to the 'least restrictive measures of confinement' will improve chances for discretionary release</li> </ul>	<ul style="list-style-type: none"> <li>• Security reclassification designations</li> <li>• Placement distributions</li> <li>• Override rates</li> <li>• Security incident rates</li> </ul>
Increasing Successful Temporary Absences	<ul style="list-style-type: none"> <li>• Participation in either escorted or unescorted temporary absence programs will establish credibility for early release</li> </ul>	<ul style="list-style-type: none"> <li>• Escorted temporary absence rates</li> <li>• Unescorted temporary absence rates</li> </ul>
Enhancing Case Preparation Activities	<ul style="list-style-type: none"> <li>• Achieving efficiencies at any one of the critical stages along the case management continuum will result in reductions in "days of incarceration" and corresponding increase in community supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Case preparation timelines</li> </ul>
Profiling of Reintegration Potential - Pre-release	<ul style="list-style-type: none"> <li>• Identification of good candidates for pre-release and re-entry priorities will improve reintegration efforts</li> </ul>	<ul style="list-style-type: none"> <li>• Reintegration potential distributions</li> </ul>
Profiling of Reintegration Potential - At-release	<ul style="list-style-type: none"> <li>• Confirmation of re-entry priorities at time of release will facilitate successful community adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Reintegration potential distributions</li> </ul>

Table 2 (continued)

Reintegration Research — Institutional Phase		
Reintegration Activities	Anticipated Results	Measures
Enhancing Community Supervision	<ul style="list-style-type: none"> <li>Effective use of frequency of contact guidelines, special conditions, community residential facilities, halfway house placements will improve offenders' successful reintegration</li> </ul>	<ul style="list-style-type: none"> <li>Community supervision levels</li> <li>Special conditions</li> <li>Residential placements</li> </ul>
Moderating Suspension Warrants	<ul style="list-style-type: none"> <li>Improving suspension efficiencies and narrowing disparities in practice will increase the potential to sustain more offenders in the community under supervision</li> </ul>	<ul style="list-style-type: none"> <li>Suspension warrant rates</li> </ul>
Moderating Technical Violations	<ul style="list-style-type: none"> <li>Understanding the technical revocation decision-making process an/or finding alternatives to revocation submissions and understanding the process may improve reintegration efforts</li> </ul>	<ul style="list-style-type: none"> <li>Technical violation rates/reasons</li> </ul>
Increasing Community-based Program Participation	<ul style="list-style-type: none"> <li>Assignment to community-based programs where the need is identified</li> <li>Community-based program participation will improve likelihood of post-release success</li> </ul>	<ul style="list-style-type: none"> <li>Matching rates of needs to programs</li> <li>Program participation rates/costs</li> <li>Community supervision completion rates</li> </ul>
Ensuring Community-based Program Completion	<ul style="list-style-type: none"> <li>Completing community-based programs will improve the likelihood of post-release success</li> <li>Reducing the number of program non-completions in the community will reduce costs in terms of wasted programming resources and in depriving motivated offenders program opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Matching rates of needs to programs</li> <li>Community-based program completion rates</li> <li>Community supervision completion rates</li> </ul>
Improving Community-based Program Performance	<ul style="list-style-type: none"> <li>In-program outcomes or treatment gain will influence decisions to reduce frequency of contact, vary reintegration potential while under supervision sentence and influence positive community adjustment</li> </ul>	<ul style="list-style-type: none"> <li>Program performance ratings</li> <li>Community incident rates</li> <li>Community supervision completion rates</li> </ul>
Improving Access to Community-based Services	<ul style="list-style-type: none"> <li>Assignment to community-based services where the need is identified</li> <li>Community-based service utilization when required will improve likelihood of community reintegration</li> </ul>	<ul style="list-style-type: none"> <li>Matching rates of needs to services</li> <li>Service referrals</li> <li>Service utilization rates</li> <li>Community supervision completion rates</li> </ul>
Reduced Re-offending	<ul style="list-style-type: none"> <li>Reduced re-admissions to provincial and federal corrections</li> </ul>	<ul style="list-style-type: none"> <li>Reconviction rates/type</li> <li>Time to reconviction</li> <li>Re-admission rates</li> </ul>

Table 3

## Reintegration Research — Community Phase

Reintegration Activities	Anticipated Results	Measures
Profiling of Reintegration Potential - At-release	<ul style="list-style-type: none"> <li>Confirmation of re-entry priorities at time of release will facilitate successful community adjustment</li> </ul>	<ul style="list-style-type: none"> <li>Reintegration potential distributions</li> </ul>
Enhancing Community Supervision	<ul style="list-style-type: none"> <li>Effective use of frequency of contact guidelines, special conditions, community residential facilities, halfway house placements will improve offenders successful reintegration</li> </ul>	<ul style="list-style-type: none"> <li>Community supervision levels</li> <li>Special conditions</li> <li>Residential placements</li> </ul>
Moderating Suspension Warrants	<ul style="list-style-type: none"> <li>Improving suspension efficiencies and narrowing disparities in practice will increase the potential to sustain more offenders in the community under supervision</li> </ul>	<ul style="list-style-type: none"> <li>Suspension warrant rates</li> </ul>
Moderating Technical Violations	<ul style="list-style-type: none"> <li>Understanding the technical revocation decision-making process an/or finding alternatives to revocation submissions and understanding the process may improve reintegration efforts</li> </ul>	<ul style="list-style-type: none"> <li>Technical violation rates/reasons</li> </ul>
Increasing Community-based Program Participation	<ul style="list-style-type: none"> <li>Assignment to community-based programs where the need is identified</li> <li>Community-based program participation will improve likelihood of post-release success</li> </ul>	<ul style="list-style-type: none"> <li>Matching rates of needs to programs</li> <li>Program participation rates/costs</li> <li>Community supervision completion rates</li> </ul>
Ensuring Community-based Program Completion	<ul style="list-style-type: none"> <li>Completing community-based programs will improve the likelihood of post-release success</li> <li>Reducing the number of program non-completions in the community will reduce costs in terms of wasted programming resources and in depriving motivated offenders program opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Matching rates of needs to programs</li> <li>Community-based program completion rates</li> <li>Community supervision completion rates</li> </ul>
Improving Community-based Program Performance	<ul style="list-style-type: none"> <li>In-program outcomes or treatment gain will influence decisions to reduce frequency of contact, vary reintegration potential while under supervision sentence and influence positive community adjustment</li> </ul>	<ul style="list-style-type: none"> <li>Program performance ratings</li> <li>Community incident rates</li> <li>Community supervision completion rates</li> </ul>
Improving Access to Community-based Services	<ul style="list-style-type: none"> <li>Assignment to community-based services where the need is identified</li> <li>Community-based service utilization when required will improve likelihood of community reintegration</li> </ul>	<ul style="list-style-type: none"> <li>Matching rates of needs to services</li> <li>Service referrals</li> <li>Service utilization rates</li> <li>Community supervision completion rates</li> </ul>
Reduced Re-offending	<ul style="list-style-type: none"> <li>Reduced re-admissions to provincial and federal corrections</li> </ul>	<ul style="list-style-type: none"> <li>Reconviction rates/type</li> <li>Time to reconviction</li> <li>Re-admission rates</li> </ul>

## Summary

Contemporary issues in corrections continue to direct research resources and focus efforts on offender classification, effective programming, and a plethora of crime reduction strategies. Since its inception, the research functions of the Service, like those in other jurisdictions, have made significant advances in their operations with increased and constantly improved offender assessment and intervention technology. The great amount of conceptual and practical work that has gone into evidence-based correctional practice is being documented in the literature. Consequently, applied research has contributed greatly to crime prevention and the modernization of corrections.

As we look at changing demographics, technologies and nature of criminal activities that are facing national and international corrections today, it is not surprising to find that the demand for sharing knowledge and specialized corrections expertise is high. The ultimate test of any correctional agencies research function, of course, will be whether further breakthroughs can still be made in reducing the likelihood of criminal futures. ■

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# Performance measurement at the National Parole Board

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## Introduction

This article discusses the function of performance measurement at the National Parole Board and the methods it uses to measure the performance of its programs. Performance measurement is the process of identifying, gathering and analysing the information needed to measure and account for the performance of the Board's programs. It is a management tool that provides a foundation upon which sound management decisions can be made to ensure that programs are operating efficiently and effectively. Performance measurement feeds into the accountability process supporting the organizational needs to demonstrate its results.

## Background

Measuring performance and results has become more and more important for governments. Managers in the public sector are asked to manage for results and to report on those results. Managing for results is quite difficult to implement because it involves a fundamental shift in perspective as managers must collect and use performance information to strengthen the decision-making process, to learn, to improve programs, and to ensure accountability. Measurement of results in the public sector is often seen as an important challenge as, traditionally, government practices have tended to be more about process than results. Moving to a results-focused culture is seen as a huge challenge and good performance reporting, according to the Auditor General in 2000, seemed to be slow.

Setting expectations for performance normally involves setting expectations for outputs. Outputs are well understood since they represent the direct result of activities. They are usually quite visible and measurable and we can comfortably talk about them because we control them. For a management and reporting regime focusing on outcomes, the situation is different. The measurement of the outcomes themselves is quite a challenge. By definition, we do not control outcomes but rather seek to influence their occurrence by carrying out certain activities and delivering certain outputs.<sup>2</sup>

## National Parole Board

To better understand performance measurement at the National Parole Board (NPB), we have to know

its mission and mandate, and to understand its place in the correctional system.

"The National Parole Board, as part of the criminal justice system, makes independent, quality conditional release decisions and pardons decisions and clemency recommendations. The Board contributes to the protection of society by facilitating, as appropriate, the timely integration of offenders as law-abiding citizens." (NPB Mission Statement)

The NPB is an independent administrative tribunal responsible for making decisions about the timing and conditions of release of offenders to the community on various forms of conditional release.

## Stakeholders

Partnership is integral to the effective operations of the National Parole Board as it is but one component of the criminal justice system. As a key partner, the Correctional Service of Canada (CSC) provides information for NPB decision making. When the Board grants releases, CSC supervises the offenders in the community and provides information to NPB on changes in risk presented by offenders. In a similar manner, the Royal Canadian Mounted Police and other police services provide information for NPB decision making for pardons. Clearly, the Board shares accountability for "outcomes". For example, the Board cannot claim full credit when parolees succeed. "Success" is the result of many players in the system, as well as the offender.

Results for the Board's strategic outcomes are normally presented from two perspectives: progress on commitments made in *Reports on Plans and Priorities* and program effectiveness, that is, the effectiveness of the Board's efforts to contribute to public safety and the public service.

When assessing whether a program achieves its goal, a variety of data and information has to be collected and analyzed to build the evidence. While no single piece of evidence will, on its own, be enough to build a credible case concerning the results achieved by a program, a larger set of different and complementary evidence can become quite convincing. It is the totality of evidence gathered that builds the credibility of a performance story.

The Board uses a variety of information sources to collect information on the performance of its programs. Performance information is collected from management reviews and evaluation activities, as well as from results of case audits and investigations. The most important sources of information used by the Board are the Offender Management System (OMS) and the Pardons Application and Decision System (PADS), which are used for data entry and data collection. OMS is a common application used by both the NPB and CSC.

### Evaluating program performance

Timely, relevant and reliable information is essential for program monitoring and performance measurement. As conditional release is the most important program contributing to public safety, significant efforts are made by the Board to ensure the quality of information collected. In the year 2000, the Performance Measurement Division developed and implemented a new Web-based application for the production of statistical information — the Conditional Release Information Management System (CRIMS). This application ensures consistency and reliability of information. As the data base is updated on a monthly basis, the Board benefits from timely information which allows for ongoing monitoring of the outputs and outcomes of the conditional release program. This application is accessible to all NPB employees, as well as to some CSC and Correctional Investigator employees. The value added of the CRIMS is that queries can be tailored to the user's specific needs and the information generated is available instantly, at the click of a mouse. The Conditional Release Information Management System can provide information on outputs such as the number and types of reviews conducted and decisions made by Board members, the workload, the number and type of Appeal decisions, parole grant rates, as well as, on outcomes of releases on parole.

The Board is judged on the outcomes of its decisions to release offenders on parole. A range of measures is used to assess the performance of parolees in the community, such as the outcomes of conditional release, the number of convictions for violent offences, and the post-warrant expiry re-offending rate. Success rate by type of conditional release is a very important performance indicator for the Board. As mentioned earlier, the Board cannot claim full credit when parolees succeed. "Success" is the result of many players in the system, as well as the offender. Board members make decisions to release offenders from institutions, but CSC is responsible for the supervision of these offenders once returned to the community. Many factors, outside the control of the Board and CSC, influence the success or failure of parole and assessing

and reporting on the real contribution of corrections to public safety is a very complex challenge.

The Performance Measurement Division prepares an annual *Performance Monitoring Report*,<sup>3</sup> in which the results (outputs and outcomes) achieved by the programs are linked to the strategic objectives of the Board as expressed in the *Reports on Plans and Priorities*. The Division also prepares many other ad hoc reports on different issues or special initiatives. All this information is used in the preparation of the *Departmental Performance Report* submitted to Parliament every year.

Statistical information, as well as qualitative information resulting from analysis and management reviews or program evaluations conducted by the Performance Measurement Division, is not only used for reporting purposes, but it is also used for management decision making. All sectors of the Board require statistical information in support of their work. For example, the information made available by the Performance Measurement Division is used to support legislative and policy reviews, strategic objectives and priority setting, program monitoring and resource allocation, standards development, communications and public education, as well as training and research. The Division is also responsible for providing all NPB statistical information to its partners, stakeholders and to the public.

Results of case audits and investigations conducted by the Board, and decisions rendered by the Appeal Division provide very good information on the quality of conditional release decisions. They identify areas of improvement and, therefore, contribute to better quality decision-making.

### Summary

Performance measurement and reporting are integral parts of the management and governance process at the NPB. As such, they serve multiple purposes: providing essential support to decision making, program and management improvement and stewardship and public accountability. Public reporting is a powerful force in promoting better understanding about performance and how to improve it. In turn, this understanding can contribute to a better system of governance and management as a whole and more specifically to a greater public trust and confidence in the corrections and conditional release programs. ■

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<sup>2</sup> Mayne, John, (April 2003). Reporting on Outcomes: Setting Performance Expectations and Telling Performance Stories. Unpublished presentation.

<sup>3</sup> The Performance Monitoring Reports are available at the National Parole Board or on its Web site.

# Measuring security in corrections: The issues and challenges

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**G**ood security is a fundamental underpinning of a safe and secure correctional environment. The correctional environment must be safe for staff, offenders and the public in order to be conducive to effective correctional planning and interventions, which promote rehabilitation and eventual reintegration of offenders into the community. How corrections agencies collect and manage information relating to the security function is an important and complex undertaking. Performance measurement in this field is challenging because, by its nature, security is a function that tends to record negative results such as incidents and disturbances. While obviously these measures are extremely important, they do not necessarily give adequate attention or weight to the many situations where daily interventions by security staff have prevented security incidents. As well, there is a need to find ways to capture some of the intuitive risk assessment that correctional staff and managers practice daily. Over time we should strive to develop new research-based measures that reflect the effective prediction and prevention of incidents before they occur.

**T**here is a saying that “safety and security is everybody’s business”. Nowhere is this more applicable than in a correctional environment, whether it is a maximum security institution, a community correctional center, or a parole office. One of the foremost responsibilities of any corrections agency is to ensure a safe and secure environment where staff and offenders can interact without fear and where the protection of the public is paramount. This goal cannot be fully achieved without the participation and cooperation of all staff and the general offender population. Security, while a major responsibility, in particular, for correctional officers, is not the exclusive domain of this group of staff. All persons working with offenders must know how to effectively interact with offenders and monitor, report and respond to inappropriate behaviour when it is observed. Security intelligence information must be collected and analyzed based on the input from many staff and often, offenders. When effectively managed, good intelligence can allow corrections managers and staff to act proactively to prevent serious security incidents. Good security is achieved when all the people affected understand the importance and recognize that they can each contribute to achieving this goal.

Conversely, poor attention to this aspect, when different groups operate in isolation and do not communicate or share relevant information, can contribute to an environment of uncertainty and unanticipated security incidents.

The Correctional Service of Canada (CSC), similar to other correctional jurisdictions and law enforcement agencies, has become very proficient at recording and reporting security incidents after they occur. A great deal of focus is directed towards investigating serious incidents in an effort to determine if policy was properly applied and to learn what might be done differently to prevent a similar incident in future. One drawback to this process is the length of time lapse between the incident and when feedback from investigation takes place, sometimes weeks or months after the event. However, the lessons learned through a review of investigation findings are one part of a very useful and important process that the organization has to improve future performance. A question often posed in the investigation of incidents is; “What did we know beforehand? Did we have any pre-indications that this type of event would occur?” Sometimes it is possible in hind sight to find some pre-indicators that were either not apparent at the time or there was an inadequate system of communication and response to this information.

There is no doubt that serious security incidents such as assaults, murders or escapes are an important indicator of how well the Service is at protecting society including the offenders and staff for whom we are responsible. Our objective always is, and should be, to attempt to reduce such incidents to zero through effective preventative action. This is why spending time on investigations can be beneficial if the results include best practices that can be shared and followed to prevent future incidents. Effective communication of findings of investigations is extremely important and can be easily overlooked without good organizational focus on this aspect.

Equally important is to have a process to systematically review security incident data and to keep an eye on trends and, more importantly, significant deviations in trends. In CSC we now produce monthly statistics concerning major security incidents which are shared with all managers and

staff through the network. We are making a concerted effort to analyze this data and encourage Wardens and District Directors to use the information at the institutional and district level to monitor security climate and to act where possible in a proactive manner to address any indications of increasing risk.

There are some significant limitations to using incident measures as the sole or primary means to measuring security performance. Although we do calculate flow-through rates of incidents per 100 offender population, we are not in a position to fully address what security measures are effective in preventing more incidents from occurring. Also, the incident data represents a negative outcome by its very nature and negative feedback is generally less effective than positive feedback in organizational learning. In this sense no matter how well we do to improve the statistics, any incidents remain a negative outcome. This can result in less focus on the positive results of risk management and effective daily interventions that result in many potential security incidents being avoided.

There is a distinct need for a partnership between the security operations and the Research Branch in order to begin to collect and evaluate new types of data about security operations that can be used to develop predictive measures based on risk analysis and proactive interventions. The incident data will continue to be an essential component. However, if we can begin to link incident data with other key variables such as security level custody ratings, gang affiliations, criminal and institutional history, disciplinary record, intelligence information and so forth, then there is tremendous potential to vastly improve our understanding of offender behaviour on the security dimension. This could lead to better measures of prevention through effective population management and timely interventions prior to incidents materializing.

Equally important, is to start to collect more information about factors that are currently

managed intuitively such as assessment of institutional climate and risk. While all correctional practitioners learn to assess risk within their environment based on observation, much of what is observed and assessed is not currently captured in any collection system that would allow analysis and development of predictive models. CSC Security is currently working with the Research Branch to develop a Climate Indicators and Profile System (CIPS) that should begin to address this need. The system is being developed initially in consultation with the maximum security institutions across Canada. In addition to including a wide variety of incident and offender profile information, this initiative will include a component designed to capture information on a daily basis about the assessed security climate within the facility. Over the next few months an evaluation of the instrument will be completed and modifications made prior to consideration for expansion to other security levels. This tool will also have a community release component so that it will be eventually of interest to community operations.

Through this type of research-based initiatives, CSC hopes to advance our collective understanding of offender behaviour and effective risk prediction, as well as early prevention of security incidents. Ultimately this will place greater focus on the positive interventions and intelligence gathering by line staff and allow us to begin to measure how frequently we are successful in preventing incidents from occurring rather than just learning from them after the fact. The end goal does not change. We need to ensure a safe and secure environment for staff and offenders that also provides the maximum measure of public safety. The prevention of security incidents is the best way we can achieve this objective. With assistance from our research partners, we can accomplish this. ■

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## Coming up in *FORUM on Corrections Research*

*The June 2004 issue of FORUM will focus on "Women Offenders".*

# Maintaining data quality in support of measurement

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Offender Management System Renewal Project, Correctional Service of Canada

**I**n an organization as large as The Correctional Services of Canada (CSC), research must provide the foundation for organizational change and influence the progression, development and delivery of CSC services that address the myriad of regional/national issues. At the most general level, applied research in corrections should strive to gather systematic quantitative knowledge supporting qualitative analysis, that is readily applicable and useful, and from which maximum benefit can be derived for improvements in correctional policy and practice.<sup>2</sup>

## Background

**T**he ideal situation to facilitate research within CSC would be to have a repository of information that would be accessed for analysis purposes only. Ideally this repository would contain the sum of all historical and current information relevant to the identified area of research or study. Current research within CSC is completed through the extraction of corporate data from one or more sources and at times may require reworking or modification due to changes in policy or business practices that may not be reflected in the current data set.

## What is data quality?

Data quality is a measurement of the accuracy, timeliness, relevance and consistency of data that exists within an enterprise.<sup>3</sup> In the context of this article, data is a symbol or other representation of some fact about some thing. It is the raw material from which information is derived and is the basis for intelligent decisions and actions. Information, is data in context, it has been given meaning.<sup>4</sup> It is this information that is vital to an enterprise in its daily operations. Poor data, results in poor information which, in turn, can lead to poor decision making. For CSC this equation has direct impact on our ability to do business as well provide accurate information to stakeholders.

CSC uses a number of electronic information gathering applications; foremost in this group is the Offender Management System (OMS). It is a prime example of a corporate electronic system which facilitates the tasks of gathering, storing, reporting and analyzing information. Fundamental to these

activities, however, is the user; anyone who is actively involved in entering information into OMS has a role to play in data quality.

## Why is it important?

CSC exists as one element of a large and complex criminal justice system. The emergence of the Integrated Justice Information initiative, through which elements of the criminal justice system are to be linked to create the Canadian Public Safety Information Network, emphasizes CSC's responsibility to produce high-quality information for the use of others. Data quality is essential to ensure that CSC can do its part.<sup>5</sup>

A fundamental role of CSC is the timely processing of information to allow for appropriate decision making relative to offender reintegration. In essence the business of CSC is the reception, assessment, treatment and reintegration of federal offenders. To facilitate this process, CSC is required to collect and analyze an abundance of information on each individual entering our system. This information is stored as data which then becomes the source of information used for various activities such as correctional planning, risk assessments, progress measurement, performance measurement and research.

CSC has a very real responsibility to the general public and to our clients to assure it is *contributing to the protection of society by actively encouraging and assisting offenders to become law-abiding citizens, while exercising reasonable, safe, secure and humane control.*<sup>6</sup> In order to do this, CSC must be able to provide the quality of information required to make accurate and appropriate decisions. Further to our Mission, CSC is driven by legislation that requires, by law, the administration of specific activities within specified timeframes. These activities can only be demonstrated or measured if they have been recorded electronically.

## What is the potential impact?

CSC is not unique in its practice of storing huge amounts of information for the purpose of decision making. The difference might be that the impact of poor data quality in our environment could be one

of public safety rather than on profits or inventory as might be the case for other large corporations. With this in mind it is important to stress that anyone involved in entering information into a system that might be retrieved at a later date for decision-making purposes plays a part in the management of data quality.

Data quality impacts all levels of any agency dependant on information produced from within. In every case, individuals entering information into any type of electronic system must be aware of the importance and potential impact of that information. An error or omission in recording a specific detail or activity can have long-standing ramifications if the error is not noticed. Data extractors, corporate reporting tools and audit systems have some level of ability to capture data errors in a system but are not completely reliable and can only be used to look for predictable errors such as a blank entry where there should be one or spelling as well as date errors.

However, contextual information is extremely hard to measure from a data perspective. Written assessments, analysis or narratives depend on the accuracy of the information being entered as well as the attentiveness of the individual entering it. Errors in grammar and diction are problematic, but of more concern, is inaccurate or erroneous information that when reviewed by a third party can be misleading or in some cases completely false.

### How can it be achieved?

Data quality does not simply happen; it is the result of a shift in both thinking and practice within an organization both at the management as well as the individual level. Ownership of responsibility and accountability on the part of anyone actively involved in recording data or information into any of our corporate and non-corporate reporting systems is the cornerstone to an environment which will consistently produce accurate and dependable information.

The process of improving data quality in an organization begins with increasing the level of awareness. Individuals involved in recording information must have clear and concise direction on the content, purpose and scope of the information they are expected to record. Users must understand what type of information they are required to collect, why they are recording it, where it is stored, how it might be used in the future, who owns it and how long it will be retained. Any form of training or

orientation should incorporate information that increases the individual's understanding of the impact of their activities as well as providing easy access to any legislation, policies or corporate directions referencing the role of information gathering and recording.

In the context of CSC, all employees are stewards of the assets of the organization, including the asset known as information. As "stewards", each person or position in the organization has specific accountabilities for the quality of the information in the system. These "stewardship" accountabilities must become a part of performance assessment criteria throughout the organization. There must be accountability on the part of the data provider.<sup>7</sup>

Finally, by increasing the level of awareness and accountability for information quality within an organization there is a demonstrated commitment to both the staff and the final product. In the end this will influence the level of commitment of the individual to the process of improving information quality within the organization.

### The final product

A successful application of a data quality management process, within an organization, will increase the efficacy of the data used in research and reporting at the corporate level as well as the confidence of the audience, towards the information produced. CSC is required to demonstrate how it is meeting its legislated requirements at a number of different levels. In order to properly demonstrate our progress CSC must be able to measure it. Accurately measuring the activities of CSC requires a dependence on corporate data that must be timely, accurate and valid. Improving the data quality environment directly improves CSC's ability to perform these tasks. ■

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<sup>2</sup> See [http://www.csc-scc.gc.ca/text/rsrch/reports/r05/ro5e\\_e.shtml](http://www.csc-scc.gc.ca/text/rsrch/reports/r05/ro5e_e.shtml), Research Program 2003-2004 for more comprehensive information.

<sup>3</sup> See <http://www.it-director.com/article.php?articleid=1327> 2003/10/07

<sup>4</sup> See [http://infonet-omst/pdffdocuments/tqdm\\_document\\_final\\_e.doc](http://infonet-omst/pdffdocuments/tqdm_document_final_e.doc) 2003/11/03

<sup>5</sup> See [http://infonet-omst/pdffdocuments/tqdm\\_document\\_final\\_e.doc](http://infonet-omst/pdffdocuments/tqdm_document_final_e.doc) 2003/11/03

<sup>6</sup> See [http://www.csc-scc.gc.ca/text/pblct/mission/index\\_e.shtml#M\\_stat](http://www.csc-scc.gc.ca/text/pblct/mission/index_e.shtml#M_stat) 2003/10/27

<sup>7</sup> See [http://infonet-omst/pdffdocuments/tqdm\\_document\\_final\\_e.doc](http://infonet-omst/pdffdocuments/tqdm_document_final_e.doc) 2003/11/03

# Reports of Automated Data Applied to Reintegration (RADAR)

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During the 1990s the Correctional Service of Canada (CSC), required a means to quickly identify the current offender-related operational issues at a variety of levels, the obstacles to improvement and the ability to view the effectiveness of results of actions taken. CSC was becoming more process and information oriented, and needed a means to identify key process areas. This included issues such as the timeliness of initial offender intake assessment or the time required to identify offender needs and timely placement into appropriate correctional programs. Information and analysis were key to succeeding in this goal. In part to meet this demand, CSC developed a comprehensive database to capture information on offenders and their reintegration processes — the Offender Management System (OMS). There remained, however, a clear requirement to sift through this data, then analyze and organize the information to enable managers and staff to quickly obtain information on specific offender-related issues. Furthermore, OMS held information that had the potential to assist in the planning and decision-making process. The key was to provide specifically designed extracts of OMS data in an informative manner to management and staff to help them better manage their work and to have staff participation in all aspects of this endeavour — needs identification, design, development, testing and release. As part of the response to these demands, Reports of Automated Data Applied to Reintegration (RADAR), was developed.

## Background

RADAR is best described as a suite of reports that provide management and staff with information focused on offenders and milestones within the correctional planning process. It was originally conceived by Messrs. Surette and McMillan in response to a strong desire by management and staff to have ready access to operational decision making and offender profile information that was stored in the OMS database. To ensure that these needs were fully addressed, the RADAR team adopted a grassroots approach of creating reports “by staff for staff”. Report needs were identified and created by the co-operative effort of a team with solid representation from each of the five regions. Several team members had very significant operational backgrounds, and thus had a deep interest and

ownership in the development of the reports. Consensus among this team was mandatory prior to release of any report. This resulted in sound decisions of what information was critical nationally and what issues had specific regional importance.

The key to making the RADAR approach work was to have staff members who were fully adept at:

- corporate data relationships — what is contained in OMS and how the input fields relate to each other;
- the associated business rules — policies and legislation; and
- understanding how the rules are applied in the field — our processes and how we carry out our duties.

Communicating with clients and with each other — RADAR team teleconferences were held bi-weekly, and RADAR used innovative tools such as Microsoft Netmeeting to share ideas and reports on-line.

This approach was coupled with inexpensive and easy to use tools developed by technical experts. Staff was trained to utilize these tools to expedite more efficient in-house production and cost-effective delivery of the most relevant information.

A key success factor for RADAR was the ‘ease of use, ease of navigation’ and the ‘utility’ of information that was incorporated into the design of the reports. These two factors were in turn driven by RADAR clients who demanded Internet-like reports, which contained the information required for effective decision making.

As a result, since the initial release, new information requests continually arrive, and clients also submit numerous requests for enhancements to existing reports. It has often been the case that the simple addition of a few data elements to existing reports can significantly increase the utility of those reports. Each regional RADAR representative continues to have a voice in accepting or rejecting proposed changes as RADAR continues to operate under the tenet that the decision for change to reports must be unanimous. All changes, once processed through this vetting process, are then designed, built, tested and placed in the RADAR suite of reports.

In essence, the process is much the same today as it was when RADAR was first envisioned; requested changes and enhancements to RADAR are submitted as tickets by one or more regional RADAR representatives, they are then discussed and decisions made on action to be taken during the biweekly conference calls.

Today, RADAR provides over 100 reports to Correctional Services of Canada staff. Access is also available to clients in the Office of the Correctional Investigator and the National Parole Board. During a typical month, over 5,000 clients access RADAR to obtain information on a wide variety of topics.

RADAR currently provides four main areas of information:

1. Action Indicators and 'look ahead' views
2. Profiles or overviews and snapshots of Offenders
3. Profiles of Regions and Sites
4. Working Lists — Performance Enhancement lists

Action Indicators are designed to identify tasks within the reintegration process that could be tardy or otherwise require attention. In essence, if these steps are not completed in a timely manner, it could affect the reintegration timetable.

It was clear from the initial use of the Action Indicators that there were several different target audiences for this information. It was important for regional management to know their current status — particularly areas that appeared to require action. However, in order to better manage issues, site management and staff also required a system to predict the items and concerns that they could be facing in the upcoming days and weeks. Thus, RADAR created the Work Planning and Personal Planning views to provide a 'look ahead' capability to assist in forecasting this information. This in turn led to the reduction in need to maintain manual Bring Forward (BF) systems for several key reintegration indicators.

The Profiles of Offenders section was designed to provide a quick overview of an offender's file, and includes offence history and correctional programming history. This is a typical example of a RADAR report that is used by a wide range of staff from parole officers to correctional officers to program delivery officers to quickly obtain specific offender information for decision-making purposes. While most of this information is available in OMS, it can be more readily accessed using Internet-like RADAR reports. As an added feature, these reports also contain an electronic version of offenders' photographs.

Profiles of sites are designed to help management assess issues and needs of each site and region by providing a variety of views of the composition of their population. The user is able to view the population profile using one or two criteria from a large selection of options. This, in turn allows for appropriate planning in response to those needs or issues raised by staff.

Working Lists enhance performance by providing information on specific topics that are used by staff to manage their day-to-day tasks. Working lists are provided on a wide variety of topics ranging from reintegration to correctional programming. Managers are also able to use the working lists or rollups to increase the accuracy of planning and prepare responses to initiatives.

As the information contained in RADAR sources are protected B documents, security of information is always a consideration in publishing information on RADAR. The assistance of the Information Management Services (IMS) group is of paramount importance to RADAR to ensure appropriate measures are in place and information technology security standards are met. This is why requirements such as client "sign off" must be obtained prior to gaining access to RADAR. Most of the data used in RADAR is obtained in nightly snapshots of data that are downloaded from the OMS. This means that RADAR consistently provides up-to-date information that is usually less than 24 hours old.

However, because RADAR uses a snapshot download, it does not usually provide data from an historical perspective as other tools are available to address this information need. RADAR is but one of a set of report suites in the Performance Management tool kit designed to provide information to management and staff on the performance of the reintegration process. Wherever possible, RADAR aligns business logic used to extract information in a manner consistent with the logic used for the reports found on other data sites. RADAR also provides direct links to other suites of reports, including the Corporate Monitoring Tool (CMT), the Corporate Reporting System (CRS) and the Community Management Information System (CMIS). RADAR staff is also actively involved as team participants in the development of the Portal on Results, Information, Measurement and Evaluation (PRIME). The purpose of PRIME is to provide the highest level of performance data and links to all other performance information sites available to CSC, thereby becoming a central point of distribution for all Performance Management related information, including RADAR.

RADAR continues to enjoy strong support for continued development. As a result, RADAR is constantly evolving to best meet CSC's changing needs. Its strength stems from the devotion and capability of its team members to identify and respond to needs in a constantly changing environment, and to the strong working relationships with the OMS, CJIL (Criminal Justice Information Library) and IMS groups. RADAR's success is very closely linked to its responsiveness to clients and the demonstrated ability to "fast track" necessary changes and additions to reports. This is particularly important during periods of policy change, when reports become obsolete and must be either scrapped or rebuilt quickly.

Currently, development is underway to enhance the "look and feel" of RADAR. The design future for RADAR holds an increased level of flexibility and options for viewing information, coupled with a search engine to assist users in finding all reports related to any given subject matter. In the future, the design of RADAR will also adopt a portal approach that will allow for the development of default menus for user groups (e.g. Parole Officers, Correctional Officers, Program Officers, management, etc.) or for menus to be personalized based on individual needs. These enhancements should make the RADAR of the future an even more powerful, efficient and user-friendly tool.

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## Let's Talk

*Let's Talk is a magazine published by the Communications and Consultation Sector of the Correctional Service of Canada.*

*Let's Talk welcomes letters to the editor, suggestions for articles and contributions from readers. Materials submitted may be edited for style and length. Please include your electronic mail address and a daytime telephone number. Address all correspondence to:*

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# The Corporate Reporting System (CRS) in the Correctional Service of Canada

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The Corporate Reporting System<sup>2</sup> (CRS) used by the Correctional Service of Canada was designed to make consistent, accurate offender-based information readily accessible to all staff members. Due to the fact that the data is available to approximately 10,000 staff members, it is essential that the system be as user-friendly and intuitive as possible. The CRS has evolved since 1991, when the first prototype was created, into the highly sophisticated system that exists today.

The CRS has been designed to satisfy the needs of all staff members, from the inexperienced user to the sophisticated analyst, by providing the tools with which to do his/her job to monitor corporate performance or the performance of a specific institution or activity against another. The following are the basic principles upon which the CRS was founded:

- All information should be available to all staff using the corporate intranet;
- The Service operates in a transparent manner and the CRS should reflect this philosophy;
- Information should be developed in conjunction with the group responsible and regional/national consultation should occur to ensure that consistent definitions are used for data reporting. For example, the Security Branch is totally responsible for their data cubes and assist in the design and development and take a major lead in the consultation process. In addition, if concerns arise about the Security data display, usage or access, the Security Branch has overall control;
- A "guided" analysis section should be provided that is designed to lead the user to the most important elements that are impacting the Service;
- Information should be provided first at a high level using graphs with accompanying tables. This facilitates analysis and provides a general overview of the Service's performance;
- Secondary, more detailed graphs and tables should be provided on pertinent population sub-groups, for example, women and aboriginal offenders;
- Wherever possible "related analyses" are developed to enable the user to examine related

information on issues such as the escapes from minimum security in relation to the direct placements to minimum security;

- An interactive component should be available to allow anyone to analyze the information at a more detailed level using multi-dimensional data cubes; and
- All information in the CRS on the intranet should be linked to the corporate data warehouse, also known as CJIL (Criminal Justice Information Library), in such a way as to permit seamless updating and to reduce manual intervention.

The CRS is composed of several completely integrated layers:

1. The foundation of the CRS is the corporate Data Warehouse that contains complete information on every offender, current and past. Additional data elements that do not exist in the raw data are calculated when the Data Warehouse is updated in order to provide more power and consistent data definitions. These data elements typically take the form of flags. For example, if information is needed on offenders who have been convicted of murder, it is not necessary to know what sections of the Criminal Code of Canada are pertinent but simply to access the "murder flags" that are calculated. Needless to say all of this information requires a thorough knowledge of both the offender-based systems and a data retrieval query language in order to retrieve information. This level of access is therefore strictly controlled.
2. Data cubes have been developed that extract raw data from the Data Warehouse and display trend information using very powerful analytical tools. The cubes, displayed in a similar layout as pivot tables, allow an experienced user to drill-down to lower levels or to create individualized reports. This data is not restricted as it is aggregated and no personal data is presented. These data cubes are used to maintain historical information such as the profile of the offender population on specific dates. Presently, there are cubes concerning the offender profile, inmate discipline, admissions, releases, transfers, absences, institutional incidents, community incidents, escapes, overtime,

programs, religion, urinalysis, grievances, and population planning.

3. The final layer is aimed at the less experienced user who has specific information requirements. A question and answer format has been developed such that a user can simply press on a specific question and obtain the correct answer without the need to know anything about the operational systems or data retrieval languages.
4. In addition to the above, the CRS includes data dictionaries that define, in plain language, all of the data that is available, pictorial help screens that show a first-time user exactly how to navigate through a system and finally more detailed explanations about specific questions and their answers.

The CRS is an integral tool used by the Service to report on corporate performance to executives, central agencies and other internal and external bodies. The CRS, in addition to other Criminal Justice Information Library (CJIL) Data Warehouse tools, is used to provide timely information which accurately reflects the data contained in existing operational systems in a simple easy-to-use format that can meet the needs of managers, for regular trend reports, and of the analysts who require detailed data manipulation functionality.

Prior to the development of the CRS and the CJIL Data Warehouse, reporting on performance was often done inconsistently. In addition, the implementation of a new offender management system in the mid-1990s increased the quantity of operational data that was accessible while, at the same time, there was a manifold increase in the level of expertise required to accurately extract and interpret the data. Due to these complexities, the extraction and interpretation of the data remained the domain of a few expert programmers and analysts.

Over time, each region and each sector in the National Headquarters had developed a data extraction and analysis capability independently of each other. The regular meetings of the Executive Committee reflected this factor in that the regions and sectors would be reporting different figures and therefore disagreements would ensue about who had the correct numbers and what the correct interpretation should be. The majority of the confusion was not caused because a group had presented incorrect numbers but because the numbers had been extracted using different definitions. Varying definitions of the same data will lead to different and often equally correct numbers.

To overcome the problems of differing numbers, the Service mandated that the responsibility for corporate reporting should be centralized. This occurred in the early 1990s and the CRS is the result.

Within CSC, great strides have been made utilizing data capture process/procedures. Tasks that often took days or weeks can now be performed in minutes or hours. For example, the analyses of overtime utilization used to take several days to summarize and analyze the data whereas, using the CRS, this task is now completed in a fraction of the time.

In order to provide accurate, consistent and timely information to all, it is necessary to operate and maintain an efficient, effective and user-friendly vehicle for this information. The CRS is successful in presenting accurately what is contained in the operational systems on a regular basis. The ease with which the CRS has made information available has caused managers to expect a wider range of trend information to be available instantaneously. The realization that accurate information is available through the CRS at the touch of a button has increased the demand and expectations of the Service towards its information providers. For instance, a number of years ago, it was acceptable to provide data on corporate performance on a quarterly basis. With the development of the CRS, the demands for accurate and timely information have grown exponentially so that it is now necessary to display the performance data on a weekly basis in most cases.

The future of the CRS is bright and other systems such as Reports of Automated Data Around Reintegration (RADAR) are linking to it. In addition, the CRS technology is being used as a primary component in a new interface being developed, the Portal on Results, Information, Measurement and Evaluation (PRIME). This site will provide managers with a single site that is seamlessly integrated to include information from various systems such as the CRS, RADAR, NPB's CRIMS application, or other performance measurement sites.

The amount of information and its complexity is increasing all of the time but, with the CRS tool, it is possible for a very limited number of staff to make complex trend information readily available to all staff members in a simple, readily understandable interface. ■

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2 Visit [http://infonyet/pa/data/corporate\\_e.asp](http://infonyet/pa/data/corporate_e.asp) for information regarding the Corporate Reporting System.

# The Climate Indicators and Profiling System (CIPS)

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The Report of the Task Force on Security (Correctional Service of Canada, 2000), recommended the following, "that the Correctional Service of Canada's Research Branch, with the assistance of knowledgeable staff, [shall] develop an instrument whereby the stability and vulnerability of operational units can be assessed systematically." This article presents the design, development and delivery of such an instrument to foster safe and secure institutional and community settings.

## Background

As result of the Security Task Force<sup>2</sup> recommendation, the Research Branch of the Correctional Service of Canada (CSC) undertook (in the Spring of 2000) the task of developing an Institutional Threat-Risk Assessment (ITRA) system whereby the: "systematic assessment of the stability and vulnerability of operational units" might be facilitated. The author was assigned as the project leader for this research-based initiative.

Before development began on the ITRA system, the Research Branch conducted a number of background studies. First, research staff met extensively with members of the Security Task Force, Wardens, and with institutional security personnel to identify the kind of information that operational managers and security intelligence officers would find useful. This exercise yielded an extensive list of potential threat-risk indicators.

From this initial list of threat-risk indicators, a second project evolved to test the feasibility of using them as predictors of institutional incidents. Using historical incident data, a subset of indicators were identified from the extant CSC historical databases and tested with statistical modelling techniques. This subset of threat-risk indicators was found to account for about 60% of the variance in incidents for maximum-security institutions.

In parallel with the second step, a third project was initiated. A more detailed analysis on the changing nature of the federal inmate population was undertaken in an extensive study of profile changes in the federal offender population between 1997 and 2002. Results of this analysis were published as: *The Changing Profile of the Federal Inmate Population: 1997 and 2002*.<sup>3</sup>

In November 1994, the Service had implemented a national Offender Intake Assessment (OIA) process. For the Service, the assessment of offender risk and needs serves to structure many of the decisions we make regarding custody or security designations, temporary and conditional release, supervision requirements and program placement. The cornerstone of any effective risk management program is making decisions after all available information has been considered.<sup>4</sup> The implementation of OIA provided the missing bookend that completed CSC's overall offender assessment process, begun in 1990 with the national implementation of a Community Risk/Needs Management Scale (CRNMS).<sup>5</sup> It was natural, therefore, that when the Research Branch began to think about ways to systematically assess the stability and vulnerability of operational units, profiles of the composition of the offender population obtained from the Services' OIA and CRNMS systems could provide a key component for assessing the level of risk in any institution.

The forth project initiated by the Research Branch during development involved the application of potential threat-risk indicators that had been identified during consultations with members of the Security Task Force. However, these indicators were not being collected in any standard or national format by the Service. From consultations with field staff, it was suggested that the threat-risk assessment system includes some method for capturing these indicators directly from the security officers in the institutions. Thus, provisional screens were developed to capture daily threat-risk indicators not otherwise available from existing data sources.

Once these preliminary projects were completed, a prototype institutional threat-risk assessment system was assembled, hence the creation of Climate Indicator and Profile System (CIPS).

## CIPS goals

It was recognized early on in the process that actually predicting institutional incidents was not the main — or even a particularly realistic — goal for the proposed new CIPS system. Rather, CIPS was seen as a threat-risk assessment tool that could assist operational managers through raising awareness of

the social climate of their operational environment. CIPS was to have multiple domains (offenders, staff, incidents) information about each of which adds something unique to the overall risk appraisal of the operational units;

- One goal is to provide managers with information on incident trends over time, so that they know when, how rapidly, and in what direction, the operational climate may be changing. This information should also provide managers with comparative benchmarks — for example, comparing trends with similar institutions elsewhere;
- Comprehensive information is also presented to allow institutions to track how their population profiles are changing, so that they can more readily identify those compositional factors that are most likely associated with institutional climate risk and make strategic changes;
- There is also a recognized need to collect and track supplementary daily climate indicators of immediate institutional vulnerability, apart from longer term trends, in order to facilitate more immediate population management strategies.

### CIPS structure and components

For CSC institutions and community, the CIPS prototype application consists of two main components: *Climate Indicators* and *Population Profiles*.

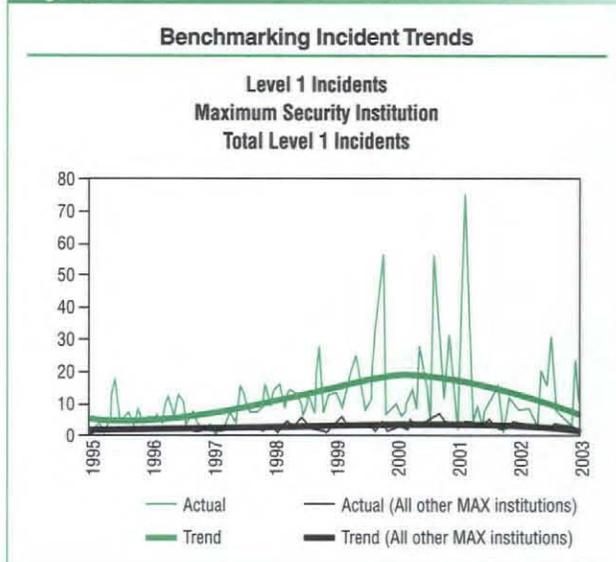
#### Climate Indicators:

Standard charts showing trends in Level 1 and Level 2 incidents, inmate grievances and inmate complaints.<sup>6</sup> In the CIPS prototype, each charts contain historical trend information from 1995 to the most recent data, the data have been standardized to reflect “rates per 100 inmates”, and the trend for every institution is also benchmarked against all other similar institutions, (as shown in Figure 1) or to the historical average for that institution.

Daily institutional security assessments, as input by institution security staff each morning via a “Daily Climate Indicator Entry” screen. The Daily Climate Indicator Entry screen captures more than two dozen individual indicators, grouped under three broad headings: 1. Overall Institutional Climate? 2. Unusual Activity? 3. Staff/Inmate Interaction?

There is also a reporting function, which provides weekly summaries of the Daily indicator report data, as well as charts for each indicator covering the last 30 days of entry.

Figure 1



### Population profiles

Profiles are available in two scenarios — “On a given day” and “In a given year” (the first compares March 31 snapshots for 1997 and 2003; the second compares admissions for years 1996–97 vs. 2002–03).

Profiles are available by Region, Institution or Area Office; for men, women and Aboriginal men, and for both the Institution and Community populations.

There are a set of standard tables and charts for the institutional population (the tables for the community population are similar but fewer in number), covering the 16 broad risk domains (see Figure 2) that were selected for inclusion in the prototype, each of which may contain several individual indicators.

Figure 2

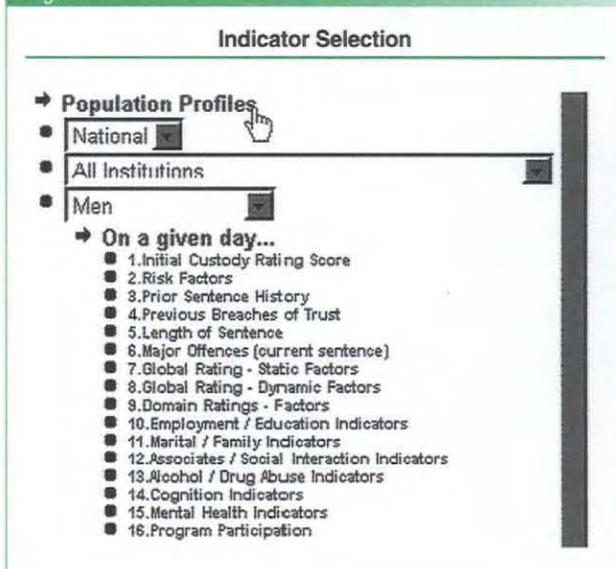


Table 1 (below) illustrates a report concerning “2. Risk Factors” for the national population of men admitted in FY 2002–03 as compared with those admitted in FY 1996–97.

### CIPS prototype — The field trial

Both the CIPS Population Profiles” and “Climate Indicator” components have been incorporated as separate modules into a single CSC Infonet application that can be accessed by operational and management staff, with proper authorization, from a desktop computer. The CIPS application has been developed using standard corporate-supported Internet software and programming tools, to facilitate the eventual integration of CIPS onto the corporate desktop.

The CIPS application prototype was distributed to maximum-security test sites during the latter weeks of July 2003, and field trials commenced once the testers had been set up and received initial training. The initial period of field trials, conducted both in maximum-security institutions as well as with selected managers from regional and national headquarters, was initially scheduled to run until the end of October 2003, but has now been extended to March 2004. This provides a period to test the data capture engine that the Research Branch has developed, to ensure user-entered information can

be seamlessly captured and processed, and to test the security features of the database and application. As well, the daily entry data that has been captured during this test period will be assessed for its contribution to defining the institutional climate. Feedback and evaluations on the overall usability of the CIPS prototype is being collected from testers, and the results of the preliminary trial with the prototype CIPS application will be reviewed in March 2004 followed by a recommended plan for further steps to be taken. ■

- 1 340 Laurier Avenue West, Ottawa, Canada K1A 0P9
- 2 Recommendation #39, *Report of the Task Force on Security*, Correctional Service of Canada, 2000. Ottawa, ON.
- 3 Boe, R; Nafekh, M; Vuong, B; Sinclair, R and Cousineau, C. (2003). *The changing profile of the Federal Inmate Population: 1997 to 2002*. Research Report R-132. Ottawa, ON: Correctional Service of Canada.
- 4 Motiuk, L. (1993). Where Are We in our Ability to Assess Risk? *Forum on Corrections Research*, 5(2).
- 5 Motiuk, L. L; and Porporino, Frank J. (1989) *Field Test of the Community Risk/Needs Management Scale: A Study of Offenders on Caseload*. Research Report R-06. Ottawa, ON: Correctional Service of Canada.
- 6 Total Level 1 Indicators include; 2. Murder; 3. Assault on Staff; 4. Assault on Inmates; 5. Hostage Taking; 6. Inmate Fight; 7. Major Disturbance; 8. Minor Disturbance. Total Level 2 incidents include: 2. Under the Influence; 3. Property Damage; 4. Disciplinary Problems; 5. Fire Setting; 6. Intelligence; 7. Unauthorized Item; 8. Theft; 9. Protective Custody Request; 10. Other Incident.

Table 1

	WOC Admissions National (Flow Population) Risk Factors			
	FY 2003		FY 1997	
Men	Number	%	Number	%
Inmates under age 30	1,446	41	1,926	43
SIR-R1* score — high risk	754	28	746	21
CRS** — high institutional adjustment risk	340	10	214	6
CRS** — high security risk	736	22	819	19
Low reintegration potential	1,185	36	1,086	26
Low motivation level	349	13	464	11
Gang affiliation	437	13	464	11

Low motivation levels are as of March 1999

\* SIR-R1 — Statistical Information on Recidivism — Revised 1

\*\* CRS — Custody Rating Scale

# Portals on Results, Information, Measurement and Evaluation (PRIME)

Michel Brosseau<sup>1</sup>

Performance Management, Correctional Service of Canada

Performance Management Branch is responsible for the provision of performance measurement by analyzing, monitoring, and measuring the overall performance of the Correctional Service of Canada nation wide. The Branch activities are guided by the government comprehensive reporting and accountability framework.

## Background

In the last few years, Treasury Board Secretariat has put in place a strategy to modernize management practices in the public sector. It is mainly recognizing that good management practices should be focusing on continuous assessment of progress and reporting on that progress. This should lead to better-informed decisions, better public policies and better service delivery. Managers are expected to define anticipated results and continually focus attention towards results achievement; measure performance regularly and objectively, and learn from this information; and, adjust to improve efficiency and effectiveness.

The government strategy consists of a three-step strategy:

- 1) identify key results;
- 2) measure performance, learn and improve; and
- 3) report to Parliament and Canadians.

The expectations put on Departments are that: key results should focus on *outcomes*; when measuring performance, we should identify indicators to measure *progress* on objectives and *results* for short- medium- and long-term; and performance information should be included into existing reports.

## CSC strategic response

In support to this mandate, Performance Management has been expanding and improving tools such as the Corporate Reporting System (CRS) and Reports of Automated Data Applied to Reintegration (RADAR). Requests from the user community have also promoted the development of more focused tools such as the Corporate Monitoring Tool (CMT) and a Community Management Information System (CMIS). All those tools are serving a specific purpose, i.e., providing information quickly to managers in specific areas of our business.

## Program model

PRIME is a Web-based tool that was developed to provide high-level performance information to

managers. It is not by itself a new set of reports but rather a one stop-shopping place with ease of use in mind. Most of the reports accessible in PRIME are available already in other tools such as CRS, CMT, etc. Most of these reports have been simplified from their original format for ease of use and to focus on results and progress. For some of the reports, we have used this Web-based tool to make paper-based reports produced by Performance Management available electronically.

PRIME is divided in two main performance-oriented areas. The first one is called "Outcomes and results" with reports such as: Re-offending after WED, Survival Analysis for murderers released on Day parole and full parole, Proportion of offenders in community who commits crimes, Temporary Absences and Work Releases, Major Institutional Incidents excluding escapes, Escapees, Major Community Offences and Release Outcomes. A second one is called "Process and compliance" with reports related to Admissions, Releases, Offender Grievances and Correctional Plans on Time.

Also, two additional information links are available that provide access to, and specific information regarding 'Offender Profiles' and 'Tools'.

So PRIME facilitates our mandate as an information portal to reports and tools developed by Performance Management available elsewhere in the Correctional Service of Canada Intranet or that has been paper based until now.

The target audience is obviously managers at all levels that need to monitor their own achievements on specific activities that will, in return, impact on the overall performance of the Correctional Service of Canada. Most of the actual reports in PRIME are updated once a month and are showing historical data. By following up on key activities, the Service should be in a better position to assess its progress, and when necessary, take the proper actions to adjust processes or policies that are not performing as expected.

PRIME is at an early stage of development and plans are put forward to improve its content and the technology supporting it. It will become the central element of our management framework. ■

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# Correctional program and site accreditation in Canada

Audrey Concilio<sup>1</sup>

Program Accreditation, Correctional Service of Canada

For more than a decade, the Correctional Service of Canada (CSC) has been developing research-based programs designed to reduce the likelihood of offenders committing new offences following release. These programs have become one of the key interventions used by CSC to “actively encourage and assist offenders to become law-abiding citizens”.<sup>2</sup>

Institutions and Parole offices all across Canada now offer these programs to offenders. Research conducted or commissioned by CSC supports the conviction that these programs are achieving their intended goals with many offenders. It is important, at this time, to ensure that the programs and the manner in which they are delivered are of the highest possible quality.

In order to fulfill its mandate of the protection of the public through safe reintegration of offenders, CSC must ensure that the interventions that it uses are effective and be able to demonstrate to the public and its partners that the programs are “state of the art”.

## Background

Program Accreditation is an approach originally developed by the Offending Behaviour Programs Unit of Her Majesty's Prison Service of England and Wales (HMPS) in the mid-1990s. It originated as a means to demonstrate the accountability of the Chief Executive to the Minister. Amongst the Chief Executive's Key Performance Indicators is one dealing with the number of offenders completing Accredited Programs. The main themes of the HMPS approach seem to be an emphasis on theoretically sound programs and a penchant for strong empirical evidence of effects on recidivism.

Program Accreditation was adopted and adapted by the Scottish Prison Service (SPS) shortly thereafter. Their thrust for Program Accreditation seemed to have come from two sources: a means to demonstrate the Chief Executive's accountability, and, a means to introduce and disseminate higher quality system-wide programming.

Based upon our understanding of the design and experience of both the HMPS and SPS Accreditation processes, a proposal was made to a group of International experts<sup>3</sup> who met at CSC invitation in Québec City, Canada in October 1997. The proposal, which was endorsed by the panel,

called for an approach for Accreditation within the Correctional Service of Canada that would involve two separate phases:

1. Programs would be accredited through the use of International Experts Panels that would utilize criteria derived from the HMPS.
2. Teams of CSC staff, using standards that would be approved as part of the Program Accreditation, would conduct the audit of the program delivery sites.

The Québec City panel felt this approach was more in keeping with the realities of the CSC context without diminishing the rigour of the process. It was also felt that the HMPS criteria required some modification in order to be more consistent with Canadian terminology and the broader programming strategy of CSC.

In February 1998, the Executive Committee of CSC approved the proposals endorsed by the Québec City Panel for a two-phased approach. The responsibility for the Accreditation process was assigned to the Assistant Commissioner, Performance Assurance in order to demonstrate an “arms length” independence from the Programs Branch.

## Accreditation process

Therefore, a Program Accreditation process has two equally important but quite different components. Part one involves assessing the quality of the program design, including elements such as staff training and support, provisions for after program learning supports and evaluation and research plans. Part two involves the assessment of the quality of delivery of the program, including adherence to the design, adequacy of management support and linkages to the overall management of the offender's case. In all aspects, one of the key elements for success is transparency — that is that all involved or affected by the process are knowledgeable about the process and its operation.

Assessing the quality of a program's design begins with the development or selection of criteria against which to evaluate programs. Program accreditation attempts to use criteria generated from research literature. We also need to define effectiveness in terms of outcomes rather than outputs. Historically,

our performance measurement approaches have focused on outputs — for example, are policies in place. Effectiveness must be outcome measured by looking at things like reduced reconviction, reduced seriousness of offences and longer periods of crime-free living.

### Accreditation criteria

Following consultation with the Québec City Panel and ongoing dialogue with the Accreditation Managers of HMPS and SPS, CSC borrowed the ten criteria used by HMPS and with advice of our expert panel members and experience, modified them to the current set of eight criteria:

The first three criteria require a well-articulated theoretical justification for the program:

1. Explicit, empirically-based model of change
2. Targeting criminogenic need
3. Using effective methods

The next two criteria are used to assess essential elements of the program design and content:

4. Skills oriented
5. Addresses responsivity issues

The two following criteria address issues of integration related to the offender's constellation of needs related to criminal behaviour and subsequent portions of the offender's sentence:

6. Program intensity
7. Continuity of care

The finale criterion addresses issues related to continuous review:

8. Ongoing monitoring and evaluation

Once the criteria to be used have been decided, the next important question is who will be the assessors? CSC decided that for the process to have credibility both inside and outside of the organization, there were four important criteria for choosing panel members: expertise, independence, balance and internationalism.

The experts who met in Québec City offered to play a continuing role in implementing Accreditation in CSC. Therefore, it was decided that Correctional Program Accreditation Panels would be comprised of three members from that original group and three members who were experts in the subject area of the programs being reviewed; for example, substance abuse programs.

### Program assessment

The next issue was method of assessment. Due to the large numbers, and fairly wide range of programs operated by CSC or contracted from program providers, it was decided to create separate accreditation panels for each of the largest program areas: Cognitive Skills, Substance Abuse, Violence Prevention, Family Violence and programs for Sex Offenders. Consistency of approach is maintained by having the same person serve as chairperson of all of the panels, by using the same criteria for all program types and by having some members serve on more than one panel.

For each program being reviewed, Panel members are allotted a minimum of four hours to read the case file and materials. It is the responsibility of the sponsor of the program to prepare a "case file". The case file should basically cover three things: a description of the way the program works; a description of how the program meets each of the eight criteria; and, literature citations used to answer the previous point. The sponsors must also submit its program manuals, participant's manual, staff training manuals, assessment tools and results of all evaluations and research conducted about the program.

At the conclusion of the reading period, the chairperson leads a discussion to identify any questions or issues that the panel members may have. In order to enhance the approach, it was decided to build in a period of time, for each program reviewed, wherein the panel members could ask questions of the program's sponsors. Whenever possible, panel sessions will also include an opportunity for panel members to visit program delivery sites. Following the discussion with the program sponsors, panel members meet privately and score the program against each of the eight criteria. There are three possible outcomes:

- Accredited;
- Not accredited, but creditable;
- Not accredited.

Once scoring has been completed, an oral feedback and detailed written report is then provided to program sponsors.

When a Panel grants accreditation, a certificate is issued indicating that the Accreditation is valid for five years.

The opportunity to consult such experts on new program concepts is an important part of the process. In sum, a typical panel will be of five days' duration and will review three to four programs and will be consulted on one or more new programs.

## How are Program Delivery sites accredited?

As we said earlier, Accreditation is a two-stage process. The first stage is the accreditation of a program. The second stage is the accreditation of sites — either Institutions or Parole Districts — where the program is delivered. Even if the program is delivered at only one location, it is a two-stage process.

If a program is accredited, it moves to stage two — Site Accreditation. If the program fails to sufficiently meet the criteria, the sponsors make the required changes and resubmit the program at a future panel or CSC decides to cease the operation of the program. The integrated program standards found in criterion 8 are to be used to assess the quality of the delivery of the program. These integrated standards form the basis for site accreditation.

CSC decided to use Site Accreditation as an opportunity for staff development and to expose its program staff to program delivery in other parts of Canada. Review teams are lead by a member from Performance Assurance Branch at CSC Headquarters. The team also includes two team members who are experienced Program Officers from different geographic regions of the country.

The team spends up to two days at the site. Prior to the visit, a significant part of the document is collected via our automated offender management system. Once on site, the team refers to offender files, program documents, interviews with staff and offenders to assess the site against the standards. At the end of the visit, they brief the Site Managers on the results and submit a report to the National Site Accreditation Panel. Should the Audit team not be supporting accreditation, the local manager must prepare and submit a corrective Action plan.

### National Site Accreditation Panels

Since there were a number of teams conducting site accreditation reviews, CSC decided to establish an internal panel entitled National Site Accreditation Panel (NAP) to ensure consistency of application of standards and to review and accept or require change to Action plans. This group has the same Chairperson as the Correctional Program Accreditation Panels. Its members include the two senior officials in CSC with responsibility for programs plus the Director Audits and Accreditation and the Manager Program Accreditation.

The National Accreditation Panel has four equally important roles. Firstly, it reviews site reports to ensure consistency of assessment and to recommend, when merited, that the Commissioner of the CSC grant Accreditation. Secondly, it reviews action plans

and either accepts the plans or requires modifications. Thirdly, it serves as an appeal body so that a Site Manager who feels that their site has been unfairly assessed may appeal that assessment. Fourthly, it makes recommendations for both modification and clarification of program standards as well as the audit criteria and methodology.

Following review of the Site team report and local manager's action plan, the NAP recommends Accreditation or directs further review to ensure that the action plan is being implemented. Once an action plan has been approved by the NAP, a follow-up is scheduled. The purpose of the follow-up is to verify that the Action plan has been implemented and that the desired results have been achieved. The Performance Assurance staff located in each region conducts this verification. The results of the verification are provided to the NAP which, based on evidence submitted, may either adjust the scores on standards or seek further evidence. This process continues until all standards are fully met. Once the Site accreditation standards are sufficiently met to merit accreditation, the NAP recommends accreditation to the Commissioner of the Correctional Service of Canada. Site accreditation is valid for three years.

When a site is granted accreditation, a formal recognition certificate is prepared and presented to the Site Manager.

### Results so far

The first Correctional Program Accreditation Panel was held in May 1998. Its subject area was cognitive skills programs. Since then, ten panels have been held on various program subject matters. These panels have involved thirty-one experts from twelve different countries. These experts have been from universities, correctional services, hospitals, and private and public organizations.

The panels have reviewed 22 programs for accreditation and granted accreditation for 16 programs. In addition to reviewing programs for accreditation, the panels also are used to consult about programs that are being considered for implementation. Eight such program consultations have also been held. The guidance of these panels should increase the likelihood of successful program design and implementation.

The Site Reviews for the accredited programs began in November 1998. During 1998, five programs were granted accreditation status. Forty male institutions were identified for review by an audit team. As of December 2000, an audit team reviewed thirty-six institutions, thirty-five audit reports were presented

for review by the National Accreditation Panel and in the end, thirty-five sites were granted accreditation status for three years by the Commissioner of the Correctional Service of Canada.

Furthermore, nineteen District offices were identified for review by an audit team. Beginning in March 2000, an audit team reviewed fourteen District offices, thirteen audit reports were presented for review by the National Accreditation Panel and in the end, thirteen sites were granted accreditation status for three years by the Commissioner of the Correctional Service of Canada.

As of December 2001, Site accreditation reviews have been stopped pending a review of the program standards and audit process. CSC decided then that a move towards integrated program standards was seen as necessary for the evolution of program development and accreditation.

In April 2003, the Executive Committee of CSC approved the integrated program standards. A new audit tool was developed and pilot sites were conducted. Site reviews will re-commence next fiscal year 2004/2005. ■

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<sup>2</sup> Correctional Service of Canada, *Mission Statement*.

<sup>3</sup> The expert panel group consisted of: Ed Wozniak, Director of Research and Evaluation, Scottish Prison Service, UK; Gerry Gaes, Director of Research, Federal Bureau of Prisons, USA; Larry Solomon, National Institute of Corrections, USA; Beth Grothe Nielson, Professor of Criminology and Law, University of Aarhus, Denmark; Edward Zamble, Professor of Psychology, Queen's University, Ontario, Canada; Maggie Hodgson, Consultant, Aboriginal Treatment Programs, Alberta, Canada; and Danny Clark, Her Majesty's Prison Service, UK.

Note: For further information regarding the Correctional Service of Canada's Program Accreditation, contact the Audit and Program Accreditation Branch, 340 Laurier Avenue West, 5th floor, Ottawa, Ontario K1A 0P9, or contact the author via e-mail at: [concilioau@csc-scc.gc.ca](mailto:concilioau@csc-scc.gc.ca)

## Corrections Knowledge Repository

*The Research Branch, Correctional Service of Canada, regularly produces research reports and briefs on a variety of corrections-related topics.*

*To obtain copies of specific reports and briefs, contact the Research Branch at (613) 995-3975.*

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# Applied research in support of program effectiveness

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**C**onducting applied research to determine the effectiveness of programs in addressing criminogenic factors and reducing reoffending is too often viewed and treated as a process that takes place well after a program has been in operation and sufficient time has elapsed to determine outcome. This situation, however, leads to very unsatisfactory results as during the evaluation questions inevitably arise that cannot be answered. The design of applied research that aims to assess the effectiveness of programs must take place at the developmental stages of the program, and be reviewed and adjusted as changes to the program takes place.<sup>2</sup> This process ensures that safeguards are in place to prevent errors and to allow for valid conclusions to be drawn.<sup>3</sup>

## The Logic Model

**T**he general goal of an evaluation is to measure change.<sup>4</sup> The research design is established to verify the outcome, and verify that this outcome (i.e., the change) is due to the program. A solid research design ensures that the expected changes are carefully defined and operationalized. Further, it ensures that other variables are controlled so that the change can be clearly attributed to the program.

The Logic Model is a useful framework to help establish the link between objectives and expected outcomes of the program.<sup>5</sup> It also provides a good source of information to inform what other variables, such as length of incarceration and other program participation, may be related to the outcome.<sup>6</sup> Controlling for these variables is crucial to demonstrate that the outcome is due to the specific program and not to some other reason. A Logic Model is a flow diagram that establishes the links among the main components of the program, the implementation objectives, and the short and long outcome objectives. It allows for planned decision-oriented evaluations. Research questions and methods of investigation flow naturally from the model and activities related to the research are clarified. Some of these activities include identifying who will use the research results and for what purposes; estimating the required short and long term resources to conduct the research; and establishing methods for data collection. The model also serves as the basis for identifying intermediate and long-term outcome evaluations. Finally, it helps

ensure that all aspects related to the program design, implementation, and evaluation are clarified a priori. In other words, using a Logic Model as the initial step in designing an evaluation framework promotes the clarification of objectives; identifies missing components; distinguishes between means and ends; ensures that the intended outcomes are clearly related to the program components and are clearly established; and removes assumptions about what the program is to achieve.<sup>7</sup>

## Defining the research questions

The standard question in evaluating correctional programs is whether the program was successful in reducing reoffending. To answer that question, well-designed evaluations with long-term follow-ups are required. Despite this, it could be difficult to establish such effectiveness on the basis of single studies, particularly those that evaluate reductions in sub-types of offending behaviour that occur in low frequency such as general and sexual violence. It must be remembered, however, that a single carefully designed outcome evaluation not only informs about the current program, but also adds to the wider body of research and may become part of later meta-analytical studies. Meta-analytical research is rapidly becoming the method of choice to demonstrate that programs are effective in reducing reoffending. These studies also help reduce the impact of threats to internal and external validity found in non-randomized evaluative designs.<sup>8</sup>

Whether a program impacted positively on successful risk management is not, however, the only question of relevance. Applied research also examines whether the program was successful in enrolling the appropriate candidates; was effective in addressing its treatment targets; and whether immediate or short-term changes, such as improved institutional adjustment, were achieved. On the longer term, the maintenance of treatment gains needs to be verified, as well as the relationship between these treatment gains and increased prosocial behavior in the community. Finally, it is useful to simply ask participants what they thought of the program and whether they felt it addressed their need.

## Psychometric instruments

Psychometric instruments, or paper-and-pencil tests, are routinely utilized in program evaluations. These instruments assess offenders on the aspects that are expected to change as a result of program participation. The tests are typically administered before the start of treatment, and following completion of the program. If the program was successful, there should be differences between the results of the pre- and the post-program tests. For example, if the program is successful in reducing anti-social attitudes, the post-treatment scores on a psychometric instrument that assesses the extent of anti-social attitudes should be lower than the pre-treatment scores. It is those differences that provide one type of evidence that the program is achieving its intended changes.

The importance of psychometric instruments in measuring treatment gains and providing evidence of the program effectiveness is often underestimated. Determining what needs to be measured is also not always carefully considered. Instruments are sometimes selected on the basis of pre-conceived notions about what 'should change' as a result of treatment instead of what is expected to change. For example, too often the assessment of assertiveness is routinely conducted as part of a program, and yet there is no evidence that a lack of assertiveness is related to criminal behaviour. Psychometric instruments should be carefully selected for their reliability and validity in measuring the construct of interest. And the construct of interest should be the criminogenic factor, or an aspect thereof, that is addressed by the program.

Sometimes, no appropriate psychometric test exists for the purpose at hand. In such cases, the tendency is to either include instruments that inadequately measure the construct, for example a personality test, or to create a new instrument. Research shows that the use of inadequate instruments does not provide meaningful information regarding the effectiveness of the program.<sup>9</sup> The creation of a new instrument may be very appropriate but requires several stages of development to establish its reliability and validity.<sup>10</sup> It is this empirical development that is too often neglected when new tests are being developed. If the psychometric properties of a test are not established, any subsequent research using the results of the non-validated test becomes meaningless. Hence, the verification of the new test's ability to appropriately measure the construct must be part of the research framework.

## The problem of comparison groups

Untreated comparison groups should be as closely matched as possible to the treatment group. Relevant matching variables involve at a minimum: age, overall risk level; and identified criminogenic needs. Issues such as settings, time and length of sentence should also be considered. Setting refers to matching on the conditions surrounding the treated and the comparison offenders such as the type of institution where the program took place. Setting is a variable mostly ignored in applied research.<sup>11</sup> Yet its impact could be significant if, for example, one is interested in examining the outcome of programs that aim, as an intermediate goal, to improve institutional adjustment, or whether a residential treatment program is equally effective if delivered in a regular penal institution.

Likely the single most difficult issue in terms of creating comparison groups is controlling for participation in programs other than the one under study. In the Correctional Service of Canada (CSC), offenders generally complete a range of correctional programs, all designed to address various criminogenic factors. For example, federally sentenced sexual offenders typically take an average of 3.2 different types of programs.<sup>12</sup> It is only in rare cases that offenders do not take any program, either institutionally or in the community. It is clear then that any evaluation of the impact of a specific program necessitates that participation in other programs be taken into account. As Los el notes, the more therapeutic the prison environment, the more difficult it is to establish that a particular program is effective.<sup>13</sup> This situation attests to the importance of creating appropriate comparison groups, and using innovative methods to control for the effect of participation in other therapeutic or correctional interventions.

Matching offenders on program participation, in addition to other relevant variables, is extremely problematic. Offenders would not only need to be matched on type and intensity of programs, but also on whether they were successful or not in completing these programs. Innovative strategies to control for these variables are therefore required. Dowden and Serin developed one such strategy in their evaluation of the Anger Management Program.<sup>14</sup> They created a composite program performance variable that took into account both the number of programs undertaken by offenders and whether they were successful or not in completing these programs. They then matched offenders in the treatment and the comparison group on this variable to control its effect. This technique permitted the authors to conclude that the participation in the

Anger program contributed uniquely to the subsequent lower rates of violent and general reoffending. As this example shows, when the comparison group is well matched, more robust conclusions may be drawn from the research.

### The issue of treatment attrition

A program may be highly effective in reducing recidivism for those offenders who complete it. However, the cost-effectiveness of the program may be compromised if only a small proportion of offenders complete it.<sup>15</sup> Further, studies show that offenders who start but fail to complete treatment reoffend at a higher rate than offenders who either complete treatment, or do not start at all.<sup>16</sup> Program attrition is a universal phenomenon that is well recognized in the correctional literature. In CSC, while there is variety in actual rates, an average of 20% of offenders who enter programs fail to complete for a number of reasons,<sup>17</sup> a statistic that compares favorably with dropouts rates reported in the literature.<sup>18</sup>

Typically, offenders drop out of programs because their expectations were not met. They found the program too demanding, or they did not believe the program would help them. In addition, program participants may be removed from a program for being disruptive or due to lack of attendance. Taken together, the reasons for dropping out of treatment are often seen as indicative of a lack of motivation on the part of the offender. A lack of motivation may be related to resistance in the client,<sup>19</sup> or related to a failure to envision the intrinsic benefits of

participating in the program.<sup>20</sup> The evaluative design should therefore include methods to assess motivation and determine its impact on program participation.

Another potential cause of attrition is a lack of correspondence between the referral and the program. For example, if an offender is assessed as having a lower need in a given area, and yet is required to complete a program of a higher intensity, he may become discouraged, and fail to complete the program. Here again, the Logic Model would specify the targeted population and the system requirements that would ensure only appropriate candidates would be included in the program. The evaluation of the program would then verify that the program was offered to the appropriate candidates. If the wrong offenders receive the program, the subsequent outcome evaluations may be rendered invalid.

### Conclusion

Designing and implementing appropriate research to evaluate correctional programs can be a daunting task. Yet, it is the only way to verify that the intervention achieved its stated goals. The overall goal of correctional program intervention is to address criminogenic factors in efforts to reduce rates of reoffending and contribute to the protection of society. Given the importance of this goal, it is incumbent upon program evaluators to develop appropriate research designs that will contribute to our knowledge in this area. ■

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<sup>4</sup> Ibid.

<sup>5</sup> Osborne, A.C. (2003). *Program Evaluation: An overview of some basic issues*. Paper presented at the Correctional Service of Canada Addiction Research Centre Summer Institute, Montague, Prince Edward Island, Canada.

<sup>6</sup> Op.Cit., McGuire (2000).

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<sup>8</sup> Los el, F. (2001). Evaluating the effectiveness of correctional programs: Bridging the gap between research and practice. In Bernfeld, G.A., Farrington, D.P., & Leschied, A.W. (Eds.), *Offender Rehabilitation in Practice* (67–92). New York, NY: John Wiley & Sons.

<sup>9</sup> Ibid.

<sup>10</sup> Nunally, J.C. (1967). *Psychometric Theory*. New York, NY: McGraw-Hill Book Company.

<sup>11</sup> Op. Cit., Los el (2001).

<sup>12</sup> Mailloux, D., & Serin, R. (2003). *Issues impacting on programming for sex offenders*. Unpublished paper. Ottawa, ON: Correctional Service of Canada.

<sup>13</sup> Op. Cit., Los el (2001).

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<sup>15</sup> Marshall, W.L., & Williams, S. (2000). Assessment and treatment of sexual offenders. *Forum on Corrections Research*, 12(2), 41–44.

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# Monitoring reintegration program participation in corrections

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*Offender participation in correctional programs is a priority of the Correctional Service of Canada. Evaluation of an offender's participation in correctional programs is an integral part of managing each offender's risk and reintegration potential. It is, therefore, one measure that reflects directly to public safety. Aside from correctional programs, there are many services, activities, therapeutic interventions and other programs available to federal offenders that contribute in various ways to the risk management of offenders. Correctional programs<sup>2</sup> distinguish themselves by addressing the multiple risk factors that contribute directly to criminal behaviour. A correctional program has clearly articulated objectives, participant selection criteria, a process for evaluating participant progress, and a process for measuring program effectiveness. Trained staff delivers correctional programs. The commitment to correctional program design and delivery in accordance with these principles is also a priority of the Correctional Service of Canada. The practice of program accreditation, and site accreditation, reflect the commitments to ensure program design and delivery are monitored and meet these standards.<sup>3</sup>*

The operational requirements of correctional program delivery are complex yet similar to an organization that is required to manage delivery of essential services. The shared responsibilities of case management and correctional program staff are key to the success of the process. Both groups communicate with each another to identify program demand and confirm program availability. Offender correctional program needs are identified and prioritized for action by case management staff as they develop each offender's correctional plan. Knowledge of program selection criteria, requirements for program-specific testing, and the link between the offender's crime cycle and individual program content is critical to matching offenders with appropriate correctional programs.

At the site where the program will be offered, a Program Board completes a review and confirms that the case management program referrals are appropriate. Correctional program officers, who have been trained to deliver the program, complete interviews with candidates to further assess their readiness to attend, reconfirm that the program selection criteria is met, and prioritize which

offenders will attend the next available session. Prioritization is required as some program candidates may have yet to complete prerequisite tests or programs. They may not have attained the minimum educational requirements for the program or may refuse to attend the program that has been identified. Program officers manage the list of offenders identified to attend their program, and continuously prioritize which offenders will enroll in the next available session.

## Assessment

After an offender has been accepted into a correctional program, the program officer completes a structured interview with the candidate and administers a battery of psychometric tests. These tests are designed to assess the participants' attitudes, characteristics, knowledge and skills as they relate to their criminogenic needs. The results are collected prior to, during and following participation in the program. Each program officer receives training on administering, scoring and interpreting these psychometric tests.

The data from the psychometric test batteries are used to assess the extent to which the participant benefited from the program. This allows the program officer to comment on significant skill acquisition, attitudinal change and the extent to which the dynamic risk factors have been addressed for the offender. The correctional program officer formally completes a final report on the offender's program participation that is incorporated by case management staff in managing the offender's overall risk. The value-added nature of the test information to overall delivery and participation in correctional programs is significant. The information provides a point-in-time understanding of correctional program delivery, and helps to further understand the impact of correctional programs on participants. The test battery data deliver information as to whether the program is effective and that information can be used to drive improvements to program content and the training of program delivery staff.

A barrier to this process has been that much of the data collection continues to rely on manual procedures with little to no automation with the exception of some reliance on electronic templates

that assist with data entry and the scoring of the test measures. Many of the tests are completed by offenders and then interpreted by the program officer. Others are structured interviews that the program officer completes with the offender. All result in data that has to be interpreted and summarized for each offender. Following this, the test data for all participants are collected and sent to a central location for further data entry to collate the information for each correctional program on a national basis. This is generally an ineffective process where delays in receiving and verifying information can result in tests that have missing or incomplete data. The ability to rectify these situations in a timely fashion is affected by the lack of automation in the process. Given the value of the test measures to understanding correctional program effectiveness and the need to improve the turnaround of this data into information, automation of the process is required.

### Test battery enhancement

Currently the Reintegration Programs Division is working closely with the Offender Management System Renewal project to develop and design an application to manage the test battery data from a central location. A correctional program performance measures application is under review for development in the near future. The proposed application will provide for data entry directly at the site where the program is offered and will permit quality control over timely data entry, and establish the ability to intervene and correct the situation as required. The impact will be a time saving to delivery staff, quality assurance personnel, site accreditation personnel, and regional and national program managers who are tasked with ensuring test batteries are administered appropriately. An extension of this application may one day see

offenders completing tests in dedicated kiosks. This possibility will relieve staff of the requirement of entering this information into automated systems. The design of the proposed performance measures application will establish a link between test battery data and OMS program assignment data that delivers a single point of entry that is validated against each program participant.

The benefit of the application will be to improve the availability of test battery data, while incorporating quality assurance as part of the design of the automated system. The test battery process will become much more visible, and as a result will improve the management of the process by placing greater emphasis on the analysis of the data over time spent collecting it. Replacing a test with a new version will be much easier from a centralized location that is able to deliver the new test immediately to staff while removing the old version at the same time. The ability to monitor correctional programs will improve significantly with automated information that will either confirm or drive changes to program content as well as the related training of staff, all in a manner that will improve our understanding of program effectiveness and each program's relation to managing offender risk. Monitoring correctional programs is critical to understanding their impact and the arrival of an automated performance measures application will improve our abilities significantly in this area. ■

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<sup>2</sup> Correctional Service of Canada, Commissioner's Directive 726.

<sup>3</sup> Program accreditation involves a review overseen by an international panel of experts who assess the program against criteria. Site accreditation involves a review of operational sites to assess the delivery of programs against standards.

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# Using proxy measures for correctional research

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*The Correctional Service of Canada (CSC) exercises reasonable, safe, secure and humane control in its endeavours to protect society and assist offenders to reintegrate into the community. In employing the least restrictive measures consistent with this commitment, CSC assesses offenders' risk to themselves, other offenders, staff members, and society. This is established via professional experiences and judgments, and the use of validated actuarial tools throughout the course of an offender's sentence. This article reviews research techniques employed for the empirically based contribution to CSC decision making, focusing on procedures of estimation and approximation.*

This article outlines techniques of estimation and approximation in;

- i) forecasting the federal offender population, and
- ii) the psychometric examination of actuarial tools that predict static risk. For both cases, empirical techniques are reviewed with respect to their contributions to the Correctional Service of Canada's (CSC's) operational-related endeavours.

## Estimation and offender population forecasting

For purposes of the National Capital Accommodation and Operational Plan (NCAOP), CSC's Research Branch uses standard time-series modelling techniques to develop medium-term (five-year) offender population projections. Generally, the NCAOP identifies money and accommodation needs for the foreseeable future. Further, to assist CSC in efficiently accommodating the operational and programming needs specific to non-Aboriginal men, women and Aboriginal offenders, the Research Branch conducted population predictions for these specific groups in the most recent medium-term forecasts.<sup>2</sup> Over time, changes in technology, legislation and operations affected the way in which data were represented, aggregated, and stored. Following is a brief discussion outlining the specific data issues, and techniques used that reduce the impacts of these changes.

Weekly inmate counts dating back to 1979 are recorded at federal institutions, and housed in a data base referred to as the Inmate Movement System

(IMS). These counts represent the total number of offenders physically in, plus outside court, hospital and temporary absences, as well as those under exchange of service agreements (ESAs) with the provinces and territories. Data in the IMS are aggregated at the institution level. As such, estimation techniques are required to break out the aggregated counts to those that fall into the non-Aboriginal men, Aboriginal men, and women groupings. Two sources of information can be used to accomplish this; the Offender Management System (OMS) and the Offender Population Profile System (OPPS).

Since 1994, the Research branch has retrieved offender data for all those incarcerated on the first day of each month — also referred to as "snapshots". These data are retrieved from CSC's Offender Management System (OMS). Since snapshot data are offender specific, demographic information such as gender and ethnicity can be tagged to individual offenders. This is done by matching data on unique offender identifiers, such as fingerprint serial numbers (FPS) or offender identification (OID) numbers. The data can then be aggregated at the institution level, and a monthly time series reflecting the proportion of offenders in the above noted groupings can be created. Next, as the process of creating the monthly research snapshots is not automated and is also dependent on the time at which OMS information is 'refreshed', there exist gaps in the time series. There are a number of ways to fill the gaps in the series. One method is to fit a statistical model to the time series so that any trends affecting the data are represented in the time series. For instance, legislative changes that increase sentences for particular crimes would result in an accumulation of those offenders with that sentence, and thus over time, an increase in their proportion of the federal incarcerated offender population.

From 1982 to 1994, inmate counts were recorded as part of the OPPS. These data are in the form of hard-copy reports and, for the forecasting purposes, can be recorded into an electronic data base. Similar to the IMS data series, the OPPS data are aggregated over total number of offenders. However, the OPPS data are aggregated within the three groupings of interest. Thus, this information can be married to the snapshot-based OMS series, then applied to the IMS

data series such that the total number of offenders is split into total male non-Aboriginal, total male Aboriginal and the total number of women offenders. The SAS statistical software program, commonly utilized by the Research Branch for analytical purposes, can then be used to fit a variety of models to the time series data, by region, for women and non-Aboriginal and Aboriginal males. Finally, the model of best fit can be determined to establish five-year projections for each of the three offender groups.

### Approximation of the SIR-R1 scale

The Statistical Information on Recidivism — Revised 1 (SIR-R1) scale combines 15 items in a scoring system that yields probability estimates of re-offending within three years of release. In 2002, CSC's Research branch examined the reliability, predictive validity and practical utility of the SIR-R1 scale.<sup>3</sup> One component of the analyses involved examining the scale for use on women and Aboriginal offenders. Currently, the SIR-R1 is not administered to federally sentenced women and Aboriginal offenders.<sup>4</sup> As such, a proximal measure of the SIR-R1 scale, the SIR-Proxy, was developed for the investigation.

The SIR-Proxy was developed from offender-specific information routinely collected upon admission to a federal institution. The primary source of information used to develop the SIR-Proxy was data derived from the Criminal Risk Assessment (CRA) and Dynamic Factor Identification and Analysis (DFIA) components of the Offender Intake Assessment process. The OIA is a comprehensive and integrated evaluation of the offender at the time of admission to the federal system.<sup>5</sup> It involves the collection and analysis of information on each offender's criminal and mental health history, social situation, education, and other factors relevant to determining criminal risk and identifying offender needs. The CRA component of the OIA provides specific information pertaining to past and current offences. The CRA is based primarily on the criminal history record but may also include case-specific information regarding any other pertinent details pertaining to individual risk factors. The DFIA involves the identification of the offender's criminogenic needs. More specifically, it considers a wide assortment of case-specific aspects of the offender's personality and life circumstances, and data are clustered into seven target domains with multiple indicators for each: employment (35 indicators), marital/family (31 indicators), associates/social interaction (11 indicators), substance abuse (29 indicators), community functioning (21 indicators), personal/emotional orientation (46 indicators), and attitude (24 indicators).<sup>6</sup>

To develop the SIR-Proxy, the 15 items of the SIR-R1 were matched to specific dichotomous OIA indicators. Endorsed OIA items were given the equivalent SIR-R1 score. For example, SIR-R1 item 15 — (employment status at arrest) was scored accordingly on the SIR-Proxy with a +1 if item 16 in the employment domain of OIA (was employed at time of arrest) was endorsed. Assessing the proximity of the scale to SIR-R1 ratings can be accomplished by comparing proxy scores to the actual scores of male non-Aboriginal offenders with a completed SIR-R1 scale. In this particular example, the SIR-Proxy was found to be highly correlated to the SIR-R1 ( $r = 0.90$ ).

Subsequently, the Proxy scale's performance can be assessed through tests of reliability, predictive validity and practical utility, and compared to those same measures for the SIR-R1. Internal consistency of the SIR-Proxy can be tested using Cronbach's alpha reliability coefficient. Results showed the scale to be reliable ( $\alpha = 0.78$ ). Next, predictive validity of the SIR-Proxy can be examined using Receiver Operating Characteristic (ROC) analysis. This type of analysis is used to calculate true positive and false positive rates for the SIR Proxy. Plotting the associated rates along an XY axis produced an ROC curve. The "area under the curve" or AUC (between 0 and 1) measures the probability that non-recidivists would score higher on the SIR-R1 scale than recidivists. An AUC of 1 indicates perfect discrimination between recidivists and non-recidivists, while an AUC of 0.5 or less indicates the scale has no power to discriminate. AUC results for the SIR-Proxy on federally sentenced male non-Aboriginal offenders were found to be good at 0.752.

Finally, Prevalence-Value Accuracy (PVA) analyses test the practical utility of a measure. Practical utility is evaluated by incorporating outcome rates and the cost of misclassifications into a quantifiable formula. In the study, this formula was a function of general recidivism rates and associated costs of false-positive and false-negative predictions. By plotting minimum misclassification over a range of success rate and false-positive/false-negative ratio combinations, PVA analysis derives a cost-surface. Analogous to the area under the curve (AUC) for ROC analysis, the volume beneath this cost surface (cost-volume index) is an index of test performance.<sup>7</sup> A perfect test would have no misclassification costs and would therefore have a volume of 0. Results of the study showed no significant differences between the cost-volume indexes of the SIR-R1 and SIR-Proxy. Given the SIR-Proxy's high correlation to the SIR-R1, it was not surprising that the SIR-Proxy fared the same or better on all performance tests.

## Discussion

The use of estimation and approximation measures throughout the course of research facilitates the Correctional Service of Canada in meeting its operational related endeavours. Specifically, the appropriate application of statistical techniques to fill data gaps enhances the accuracy of population forecasts, aiding the decision processes concerned with capital and accommodation planning. Also, the implementation of a proxy measure for an actuarial tool such as the SIR-Proxy could increase efficiency and save operating costs for the Service. As the SIR-Proxy was derived primarily from the Offender Intake Assessment data base in CSC's Offender Management System, it is conceivable that the SIR-R1 be replaced by the SIR-Proxy via an automated process. This would reduce the workload for Case Management Teams, and improve predictive accuracy with respect to post release outcome. ■

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- 2 Nafekh, M., & Boe, R. (2003) *A Medium-Term Federal Offender Population Forecast: 2003 to 2007*. Research Report R-137. Ottawa, ON: Correctional Service of Canada.
- 3 Nafekh, M., & Motiuk, L. (2002) *The Statistical Information on Recidivism Revised 1 (SIR-R1) Scale: A Psychometric Examination*. Research Report R-126. Ottawa, ON: Correctional Service of Canada.
- 4 Practice guidelines were set after construction studies were unable to confirm predictive validity for these two groups.
- 5 For a more detailed description of the OIA, see Motiuk, L. L. (1997). Classification for correctional programming: The Offender Intake Assessment process. *Forum on Corrections Research*, 9(1), 18-22.
- 6 See Correctional Service of Canada's Standard Operating Procedure 700-04 for a complete listing of indicators.
- 7 Remaley, A.T., Sampson, M.L., DeLeo, J.M., Remaley, N.A., Farsi, B.D., & Zweig, M.H. (1999). Prevalence-Value-Accuracy Plots: A New Method for Comparing Diagnostic Tests Based on Misclassification Costs. *Clinical Chemistry*, 45, 941-943.

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