

## Process evaluation of Custodial Case Management: Case plans

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**AIM** To examine whether implementation of the Improved Custodial Case Management (CCM) model in NSW correctional centres has been associated with population-wide changes in case planning activity and quality, compared to previous case management practices.

### **FINDINGS AND CONCLUSIONS**

We found that implementation of CCM was associated with a substantial increase in the number of inmates who were eligible for case management, relative to previous practices. There were also indications of increased case planning activities post-CCM, including greater numbers of completed case plans and timely administration of risk assessments to inform case plans; however these increases were not sufficient to address changes in inmate demand. Workload demands also appeared to be impacted by more stringent review requirements for case plans to be considered current under CCM.

There were more consistent indications of improved case plan quality following implementation of CCM. Case plans had a greater number of identified risk factors that were targets for intervention and casework steps to address those factors post-CCM, relative to pre-CCM. While equivalent data were not available pre-CCM, there were also indications of high levels of inmate engagement in the case plan development process under CCM.

We concluded that the CCM represents an improvement in the depth and quality of case plans for inmates that inform case management activities over the course of their sentence. This provides a positive foundation for further calibration of the case planning workload model as CCM staff and practices become more established over time.

## INTRODUCTION

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A foundation of effective case management in the custodial environment is development of quality case plans that reliably identify an inmate's case management needs and risk factors, as well as the casework steps that are required to address these factors. Quality case plans thus provide a clear framework for inmate management in a way that promotes behaviour change and reduces their likelihood of future reoffending (Cook, 1992; Ridgely & Willenbring, 1992; Viljoen, Shaffer, Muir, & Cochrane, 2019).

For several years Corrective Services NSW (CSNSW) has employed case management models that are aligned with risk need responsivity (RNR: Andrews & Bonta, 2010) principles, and aim to address inmates' needs in custody as well as preparing them for reintegration into the community. Prior to 2017, development of case plans as well as recommendations for classification and placement of sentenced inmates were completed in a single process by Custodial and Offender Services & Programs staff during Case Management Team (CMT) meetings.

A series of reviews (NSW Auditor-General, 2017; Operational Performance Review Branch (OPRB), 2014) identified several shortcomings of the previous case management model. For example, case plans were often developed in CMT meetings without the involvement or input of the inmate, and prior to formal assessment of the inmate's criminogenic needs. Consequently, case plans often did not adequately identify case management factors relevant to the inmate or determine appropriate intervention strategies. Shortcomings relating to access to case management among sentenced inmates and case plan review processes have also been identified (for a summary of identified case planning challenges, see Annex A).

To improve on the previous model of inmate case management, CSNSW developed the Improved Custodial Case Management (CCM) model as a key reform in the NSW Department of Justice (now Department of Communities and Justice) Strategies to Reduce Reoffending. The new CCM is founded on an interdisciplinary approach to inmate management and rehabilitation. Reforms under the CCM primarily involve the creation of Case Management Units (CMUs) consisting of teams of dedicated Case Management Officers (CMOs) at each correctional centre. CMOs play a pivotal coordination role in developing case plans with inmates and promoting accommodation of their case management needs in the classification and placement process. The model commenced operations at NSW correctional centres from December 2017 and has been implemented at all centres as of March 2019.

## AIMS

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The current study aimed to evaluate whether implementation of CCM has been associated with intended improvements in case planning activity and quality, compared to case plans developed under the previous case management model. To achieve this aim, reviews of the previous case management model and accompanying policies and procedures were examined to identify a number of key differences in case plan activity between the previous model and CCM, and the expected benefits of revisions under CCM (see Annex A). Analyses were then developed to quantify the effects of changes across models.

To accommodate the aims and design of this study, it was necessary to have common sources and definitions of outcome variables between the previous case management model and CCM. As a result, only differences across models that could be quantified through equivalent data streams were examined in this study, unless otherwise noted.

## METHODS

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Data for this study were extracted from the Offender Integrated Management System (OIMS). Relevant data included inmate population and case plan activity variables at each NSW correctional centre.<sup>1</sup> Aggregate monthly data for each correctional centre were derived by calculating totals on the last day of each month in the observation period.

As a result of the staggered roll out of CCM across correctional centres, each centre included in this study had a different Go Live date, or date at which the centre transitioned from the previous case management model to CCM. As such it was not possible to examine differences across models through gross chronological trends at the population level.

To compare case plan activities across models, we therefore defined the Go Live date of each CCM site as their respective T0, and examined case plans that were created over the eight month period before (T-8 to T-1) and after (T1 to T8) the Go Live date. For example, T1 is the first month of CCM operations immediately after the Go Live date of that correctional centre, whereas T-1 is the first month immediately prior to the Go Live date. At the aggregate level, the observation period for all data in this study ranged between 30 April 2017 and 1 November 2019. Because T0 represents the month of transition between the previous and current CCM models, data relating to T0 was excluded from analyses.

## FINDINGS

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### Are more inmates eligible for case plans under CCM?

*Prior to the implementation of CCM (pre-CCM), only inmates with 6 months or more to serve until their earliest possible release date (EPRD) were eligible for case planning. With the implementation of CCM (post-CCM), all inmates with 3 months or more to serve till EPRD have become eligible for case planning. It is expected that there would be an increased proportion of inmates considered eligible post-CCM<sup>2</sup>.*

At the aggregate level, there was a monthly average of 7073 sentenced inmates housed at NSW correctional centres pre-CCM and an average of 7416 inmates post-CCM. Of these respective cohorts, the monthly average proportion of inmates eligible for case planning was approximately 83% (5866) pre-CCM and 95% (7055) post-CCM. This corresponds to an average monthly increase of 12%, or approximately 1188 inmates who were eligible for service under CCM.

Figure 1 shows the flow of total and eligible inmates housed at CCM correctional centres across the observation period (T-8 to T-1, and T1 to T8, respectively). It can be seen that there was a substantial and immediate increase in the number of inmates eligible for case plans on a monthly basis post-CCM when compared to pre-CCM.

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<sup>1</sup> Pre-CCM data were not available for the two 'Rapid Build' correctional centres (Macquarie Correctional Centre and Hunter Correctional Centre) because both sites commenced operations with CMUs in place.

<sup>2</sup> Each section of the findings is informed by proposed differences between CCM and previous case management practices, which are described in Annex A. Relevant differences are summarised in italics at the beginning of each section of the findings.

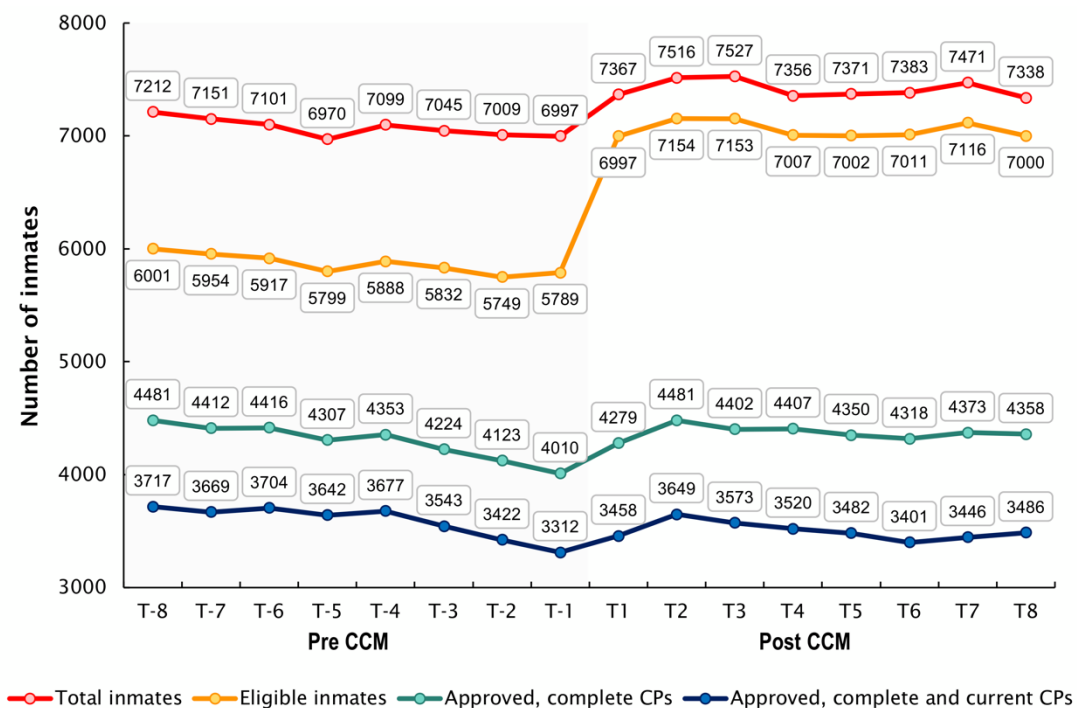
## Are more eligible inmates receiving approved and complete case plans?

*In conjunction with an increased proportion of all inmates who are considered eligible for case planning, it is expected that a larger proportion of inmates will receive an approved and complete case plan.*

As previously noted, the average monthly count of sentenced inmates over the study period was 7073 pre-CCM and 7416 post-CCM. Of these cohorts, the monthly average proportion of inmates who were eligible for case management and received approved and complete case plans was 61% (n = 4290) in the pre-CCM period and 59% (n = 4371) in the post-CCM period.

The results indicate that the monthly average activity in generating approved and complete case plans increased slightly (an average of 80 inmates) between pre-CCM and post-CCM. However, when factoring in fluctuations in the population, the proportion of inmates with an approved and complete case plan declined slightly (2%) under CCM.

Figure 1 also illustrates that while there was sharp growth in the number of eligible inmates post-CCM relative to pre-CCM, there was only a slight upwards trend in the flow of eligible inmates with approved and complete case plans post-CCM. This indicates that gross monthly activity in generating complete and approved case plans has increased slightly or remained steady at NSW correctional centres in the months following implementation of CCM at that site.



**Figure 1.** Cumulative flow of total inmates; inmates eligible for case management; eligible inmates with approved and complete case plans; and eligible inmates with current case plans over the observation period.

## Are case plans reviewed more often?

*In the previous case management model, inmates' case plans were required to be updated once every 12 months. Case plans were therefore often outdated and did not accurately reflect inmates' current situation or presenting needs. Post-CCM case plans are required to be updated at least every 6 months. It is expected that there would be an increased proportion of case plan reviews conducted within the one year period following development of a case plan, expressed as a greater proportion of current and unexpired case plans.*

Indicators of case plan revision or updating actions on OIMS were not consistent across case management models and therefore deemed unsuitable for the purposes of analysis. To address this we used an indirect indicator of review in the form of 'current' case plan status. Current case plans are approved, complete case plans that have also been reviewed and updated as required by relevant service specifications.

Out of the monthly averages of eligible inmates with approved and complete case plans pre- and post-CCM (4290 and 4371 respectively), the average proportion of inmates with current case plans was 84% (n = 3585) pre-CCM and 80% (3501) post-CCM. This indicates that on a monthly basis, there was an average relative decrease of 83 inmates (or 4% of inmates) with current case plans post-CCM. Figure 1 similarly shows that rates of current case plans among eligible inmates were steady or slightly lower post-CCM.

The results may be interpreted to indicate that there was an average monthly case plan expiry rate of 16% pre-CCM and 20% post-CCM. It is noted, however, that rates of case plan currency or expiry are likely to be differentially affected by the volume of review and updating activity pre-CCM and post-CCM. Because updates are required twice as frequently post-CCM compared to pre-CCM (every 6 months and 12 months respectively), case plans under CCM effectively require twice as much updating activity to maintain comparable rates of expiry to those observed under the previous case management model.

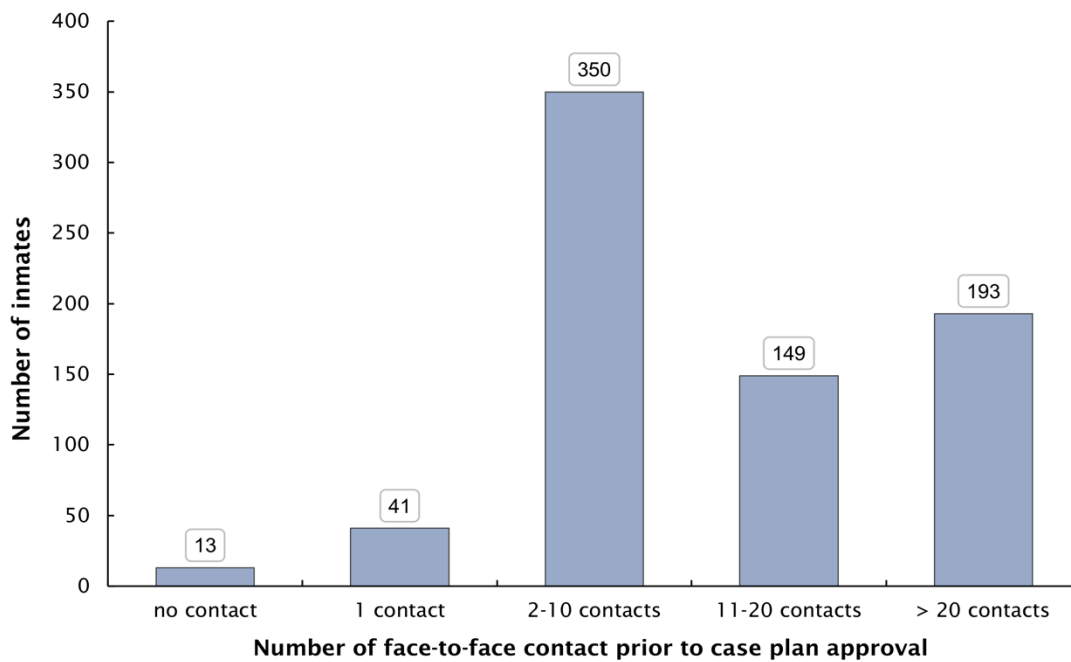
## Are inmates being engaged in case planning?

*Under the previous model, there was often limited evidence of inmate involvement in the case plan development process. Under the current CCM model, case planning is conducted by dedicated CMOs to allow for greater inmate involvement and better accommodation of their case management needs. It is expected that there would be an increased number of face to face sessions (e.g., case plan interviews, assessment interviews) with the inmate prior to the development and approval of their initial case plans post-CCM.*

This analysis examined data pertaining to inmates' involvement in initial case plan development among newly sentenced inmates (NSIs) only, to minimise cross-contamination of data among existing inmates who may have experienced service delivery under both models. NSIs were identified as those inmates who were sentenced within each month of the observation period and eligible for case planning.

A review of available data indicated that equivalent records on case plan meetings with inmates were not available pre-CCM. Given the potential importance of this area of inquiry, we opted to report on available data for post-CCM interview activity only.

Among the 746 NSIs who received approved case plans post-CCM, almost half (46.9%; n=350) had between 2 and 10 contacts with CMOs prior to approval of their initial case plan. A further one in five NSIs (20%; n=149) had 11–20 contacts, and one in four (25.9%; n=193) had more than 20 contacts with CMOs before their initial case plan was approved. Very few inmates (1.7%; n=13) were recorded as having no contacts with CMOs prior to approval of the initial case plan (see Figure 2).



**Figure 2.** Frequency of face to face contact with NSIs prior to case plan approval over the observation period.

As previously noted, equivalent data streams on inmate involvement pre-CCM were not identified. A more qualitative source of comparison may be indicated by a thematic review of the previous case management model (OPRB, 2014), which indicated that in 89% of the cases reviewed, there was limited or no documented evidence to indicate inmates were involved in the development of their case plans. While this observation was based on a small sample of case plans for 200 sentenced inmates, the sample was randomly selected and thus may be considered representative of pre-CCM case planning practices.

## Are case plans informed by risk assessment?

*Reviews indicated that a number of pre-CCM case plans were considered ‘complete’ and ‘approved’ although were not informed by results of relevant risk assessments, such as the LSI-R. Post-CCM, risk assessments are required to be administered by week 5 (or week 12 for inmates with a supervised parole order) from the inmate’s date of sentence. It is expected that there would be an increased proportion of current case plans that are informed by relevant risk assessment tools post-CCM compared to pre-CCM.*

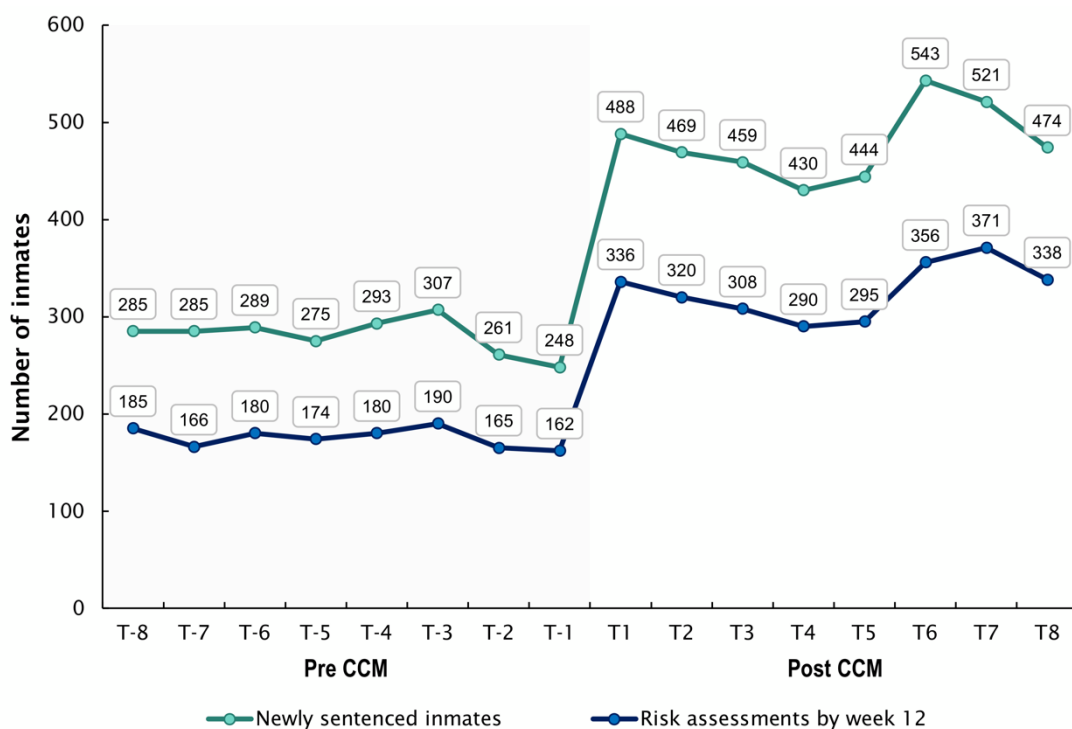
This analysis also examined data pertaining to the development of initial case plans for NSIs during the pre-CCM and post-CCM observation periods. Given that methods of assessing risk have changed since implementation of CCM, we used Level of Service Inventory – Revised (LSI-R) records as an indicator of risk assessment pre-CCM and records of either LSI-R or Custody TRAS<sup>3</sup> assessment as an indicator of risk assessment post-CCM.

To generate a consistent proxy for timely completion of risk assessments during the case planning process across models, we defined case plans as being informed by relevant risk assessment if relevant risk/needs assessments were completed within 12 weeks of sentence.

<sup>3</sup> The Custody TRAS is an automated tool developed by CSNSW to estimate an inmate’s risk of returning to custody within two years with convictions for new offences; see Raudino, Corben, Galouzis, Mahajan, & Howard (2019).

There was a monthly average of 280 NSIs housed at NSW correctional centres pre-CCM, which compares to 478 inmates post-CCM. The monthly average proportion of NSIs with case plans informed by results of risk assessment (LSI-R) within 12 weeks of their sentence date pre-CCM was 63% (n = 175). In comparison, the monthly average of NSIs with case plans informed by results of risk assessment (LSI-R or Custody TRAS) within 12 weeks of their sentence post-CCM was 68% (n = 327). This indicates that there was an average monthly increase of 5% of inmates (or 152 inmates) receiving relevant risk assessments within 12 weeks of sentence following implementation of CCM.

Figure 3 illustrates that gross risk assessment activity, in the form of the numbers of NSIs receiving relevant risk assessments within 12 weeks of sentence, increased markedly after implementation of CCM. This was accompanied by increases in the total number of NSIs requiring assessment, resulting in a relatively steady overall proportion of all NSIs receiving assessment pre- and post-CCM.



**Figure 3.** Cumulative flow of total NSIs; and NSIs with case plans informed by risk assessments within 12 weeks of sentence over the observation period.

## Do case plans identify relevant case management needs and risk factors?

*Under the previous model, case plans often did not adequately identify case management factors relevant to the outcomes of an inmate's risk / need assessments. Under the new CCM model, CMOs are trained to develop whole of sentence case management pathways which incorporate all relevant factors at differing levels of priority and timeframe for completion. It is expected that there would be an increased proportion of case plans that list all relevant risk factors as identified by risk / need assessment tools.*

For the purposes of this analysis, we examined the extent of correspondence in eligible inmates' approved case plans between their needs as assessed by the LSI-R, and the factors entered into their case plans. In particular, we tested the association between number of LSI-R domains identified as needing improvement and the number of risk factors listed in the case plan. This approach was informed by CSNSW LSI-R

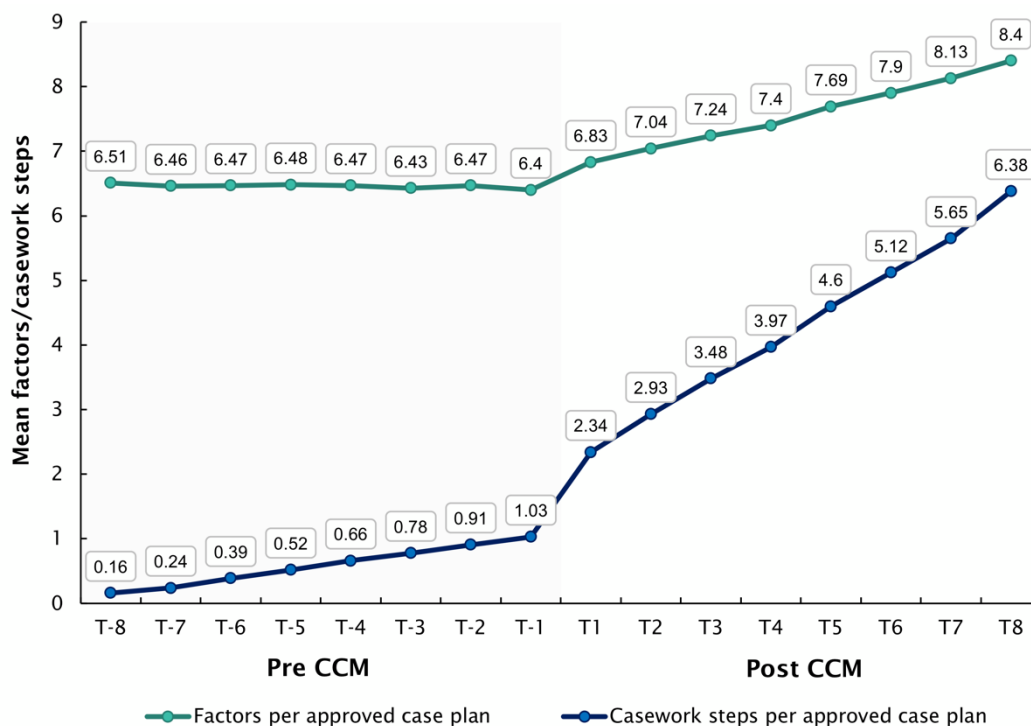
assessment guidelines whereby domains with ‘some need for improvement’ or ‘considerable need for improvement’ should be transferred to the inmate’s case plan and listed as risk factors.

Bivariate correlation statistics indicated that there were small to moderate positive associations between the number of needs identified from LSI-R assessment, and the number of risk factors listed in inmates’ case plans, for both pre- and post-CCM ( $r = .30$  and  $r = .26$ , respectively). In other words, inmates who presented a greater number of criminogenic needs also tended to have more factors listed in their case plans.

Figure 4 also shows that there was a higher average number of factors identified and factored in case plans post-CCM (mean = 7.58) compared to pre-CCM (mean = 6.46). When considered in conjunction with the measures of association described above, this pattern of results may be indicative of trends towards identifying a greater range and number of case plan factors for a given domain of need following implementation of CCM. These results may also have been influenced to some degree by differences in the average severity of LSI-R need profiles among inmates in pre-CCM and post-CCM cohorts.

To examine these associations further, we focused on the case of scores on the alcohol and other drug (AOD) domain of the LSI-R. This domain has historically been associated with relatively well-established case planning factors that are common across models, including Drugs; Drug Abuse - Intensive; Alcohol; Alcohol/Drug Problem (LSI-R); or Alcohol Use - Intensive.

Results indicated that among inmates identified as having need for improvement on the AOD domain of the LSI-R, 92.0% of pre-CCM case plans had one or more AOD factors listed. By comparison, 94.1% of post-CCM case plans showed correspondence between AOD domain needs and listed case plan factors.



**Figure 4.** Cumulative flow of the average number of factors and casework steps recorded in approved case plans over the observation period.



## Do case plans include adequate casework steps to address risk factors?

*Reviews of the previous case management model indicated that case plans often did not adequately include casework steps that address inmates' identified case management needs, or included casework steps for needs that were not previously identified. Under the new CCM model, CMOs are given extensive training in case management and factors impacting case planning quality in custodial settings. It is expected that there would be an increased proportion of case plans that include casework steps that adequately address the inmate's identified risk factors post-CCM.*

In this analysis, we examined associations between risk factors listed in inmates' approved case plans and the casework steps recorded to address these factors. In particular, we examined whether the number of risk factors listed in a case plan corresponded with the number of casework steps identified.

The average total number of individual casework steps recorded per approved case plan was 0.59 pre-CCM. This compares to an average of 4.31 casework steps post-CCM (see also Figure 4). Additional analyses indicated that there was a moderate correlation between total number of risk factors identified and number of casework steps listed per approved case plan post-CCM ( $r = .44$ ;  $p < 0.05$ ). By comparison, there was no statistical relationship between number of factors and number of casework steps identified pre-CCM ( $r = -.004$ ;  $p > 0.05$ ).

We also examined the ratio between casework steps and factors recorded per approved case plan, after adjusting for the LSI-R domains that were identified as having needs for improvement (Figure 5). Results indicated that each listed factor in post-CCM case plans was associated with an average of 0.82 recorded casework steps. In contrast, each listed factor in pre-CCM case plans was associated with an average of 0.60 casework steps.<sup>4</sup>

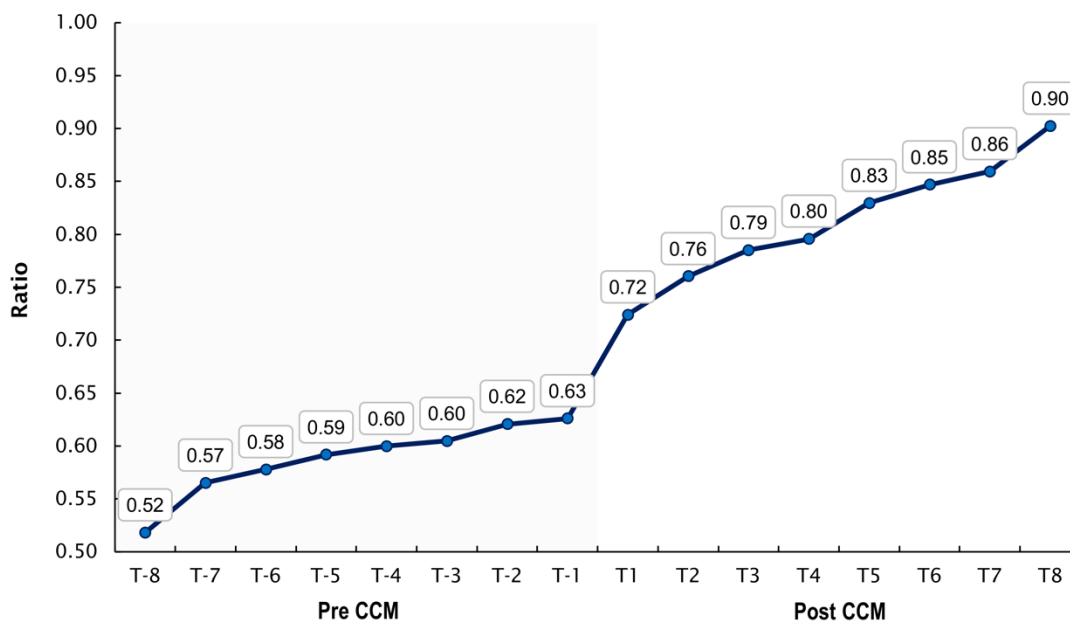


Figure 5. Monthly average ratio of casework steps to case plan factors over the observation period.

<sup>4</sup> We note that any given casework step can address more than one factor; therefore the exact ratio between each factor and number of casework steps may vary from the estimated averages.

Taken together, the results of these analyses indicate that when compared to pre-CCM case plans, post-CCM case plans show signs of increased depth in the identification of risk factors and casework steps that may be applied to address those factors. This is evidenced both in terms of the total number of casework steps recorded per case plan, and the number of steps recorded for each factor or domain of need.

## CONCLUSIONS

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Quality case planning is a fundamental component of effective case management to address offenders' needs, particularly within complex and highly structured environments such as correctional centres. CCM represents a substantial reform to inmate case planning and management that aims to address various shortcomings identified in the previous model utilised by CSNSW. Consistent with the system-wide reach of this reform, the aim of this study was to quantify changes in case plan activity and quality at the population level as correctional centres transitioned to CCM from previous case management practices.

An overarching finding is that implementation of CCM has been associated with substantial increases in access to case management among the inmate population, with larger proportions of inmates considered eligible under CCM relative to the previous model. This is consistent with expansion of eligibility criteria to include sentenced inmates who have as little as three months to serve before earliest date of release.

The results of this study indicated that the frequency of some case plan activities, such as development of complete and approved case plans and timely administration of risk assessments, correspondingly increased following implementation of CCM. However, it appears that the observed increases in these case planning activities were not sufficient to address the large and rapid uptick in numbers of eligible inmates under the new model. Case plan activity may have been hampered in the months following introduction of CCM by requirements to transition the large backlog of existing case plans to the new model, and application of more stringent criteria for a plan to be considered complete and approved. We also acknowledge that the initial months of CCM implementation examined in this study may have been impacted by ongoing challenges with employing and training CMU staff.

Similarly, results showed that proportions of inmates with expired case plans increased slightly under CCM. According to the respective case management policies, maintaining case plans as current under CCM effectively requires twice the amount of revision activity compared to the previous model, given that revisions are required once every 6 months as compared to once every 12 months. Unfortunately data were not available to directly assess the frequency of revision actions across models. Nonetheless, the findings indicate that CCM policies for revision and updating of case plans have implications for the workload required to maintain high standards in plan expiry rates.

Limitations with the consistency of data across models also prevented any conclusive comparison of the extent to which inmates are involved in the case planning process. Meetings with inmates for case planning purposes were only systematically recorded under CCM; therefore we considered data for this model only. It appears that during the study period, almost all inmates attended interviews with CMOs prior to approval of their initial case plan, and 93% had two or more contacts with CMU staff before their case plan was approved. While it is unclear how this compares statistically with pre-CCM procedures, the data show clear evidence of inmate involvement and engagement in the case planning process post-CCM. This has positive implications for the development of case plans that are tailored to inmates' individual needs and promote collaboration in the case management process under CCM.

While findings about levels of case plan activity to accommodate increased demand under CCM were mixed, a more consistent pattern of findings emerged about the content and quality of case plans.

Relative to previous case planning practices, CCM case plans contained greater depth and relevance of identified factors for intervention. Casework steps for implementing and sequencing interventions also showed evidence of more in-depth planning, both in terms of the total number of steps identified per case plan, and the number of steps identified for any given factor or domain of need. Improvements in how factors and steps for intervention are identified in case plans have significant implications for how CCM translates the case planning process into delivery of interventions and efficiency of treatment pathways at the system level.

We acknowledge some limitations to these findings. It was not possible to generate a comprehensive set of quantitative indicators of case plan activity and quality that were consistent across models. In addition, the pre-post time series design of this study (adopted to accommodate the staggered roll out of CCM across sites) precluded examination of longer timeframes beyond the initial transitional period of 8 months, or of chronological trends at the population level. There is potential for CCM case plan activity and quality to further improve as relevant policies and procedures evolve and CMU staff and practices become more established over time.

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## ANNEX A

### Summary of case planning challenges identified in the previous model and corresponding reforms under CCM

Previous case management	Reforms under CCM	Expected benefits
Only inmates with 6 or more months to serve until their EPRD received a case plan.	Inmates with 3 or more months to serve until their EPRD will receive a case plan.	Increased proportion of inmates who are considered eligible for case planning and receive an approved and complete case plan.
Case plans are updated once every 12 months by the CMT. Case plans are often outdated and do not reflect inmates' current situation or presenting needs.	Case plans are updated after significant events (e.g., exit from intensive treatment units / segregation) and at least once every 6 months.	Increased proportion of case plan reviews conducted within the one year period following the development of a case plan.
Some case plans were created prior to the administration of risk assessment tools such as the LSI-R.	PARRCC and LSI-R are to be administered within 5 weeks (or 12 weeks for inmates with supervised parole orders) from date of sentence.	Increased proportion of case plans that are formulated based on the results of relevant risk assessment tools.
Case plans often showed limited evidence of inmate involvement in the development process.	The separation of case management from classification and placement, and the creation of the CMUs as a dedicated resource for case planning and management with inmates.	Increased number of substantive face to face sessions (e.g., case plan interviews, assessment interviews) with inmates leading up to development of case plans.
Case plans often do not adequately identify case management factors that are relevant to the inmate.	CMOs are trained to develop whole of sentence case management pathways which incorporate all relevant factors at differing levels of priority and timeframe for completion.	Increased proportion of case plans that list all relevant case management needs as identified by risk assessment tools.
Case plans often do not include casework steps that address inmates' identified case management needs; or conversely, include casework steps for criminogenic factors that were not previously identified as inmates' case management needs.	CMOs are given the same case management training as Community Corrections Officers, as well as additional training around factors impacting case planning in a custodial setting.	Increased proportion of case plans that include casework steps to address identified case management needs.



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