Management Study

Executive Summary

This management study was developed to examine the Southeast ESPs current operating model and identify whether any efficiencies could be feasibly implemented in order to reduce operational costs without any adverse reductions in program services or quality. In 2014, DMH performed a similar review of its operations to identify similar types of possible operational improvement areas.[1] This management study builds upon many of the findings in that report and also draws from additional information gathered through interviews with program managers, key policy leaders as well as ESP stakeholder groups.

A number of scenarios were examined throughout the course of this study ranging from personnel restructuring efforts, service centralization, revenue recovery rate, and other efforts to increase general operational productivity. Following an examination of these various cost savings measures, and assessing the feasibility of their implementation, six primary efforts were identified resulting in an estimated projected net program savings of $904,120 in the first year following implementation and $2,108,816 over the three year projected transition period. Each year, savings are increased by the CMS Market Basket rate for cost of living adjustments reflected in form 2A.

	Year 1	Year 2	Year 3	Total Projected Savings
Shared Program Call Center	$441,935	$644,569	$390,239	**$1,476,743**
On-Call and Overtime Restructuring	$223,877	$0	$0	**$223,877**
Runaway Assistance Program	$141,904	$0	$0	**$141,904**
Staff Realignment	$43,365	$71,890	$10,985	**$126,241**
Revenue Recovering Maximization	$2,554	$25,268	$61,743	**$89,565**
Distribution of Laptops	$50,485	$0	$0	**$50,485**
Total Savings	**$904,120**	**$741,727**	**$462,967**	**$2,108,816**

Centralized Call Center: estimated $441,935 operating expense reduction in the first transition year and $1,476,743 cumulative over three transition years

This initiative envisions the establishment of a shared call center capable of servicing all four SE ESP service areas. This shared call center is meant to eliminate redundant program overhead and increase program efficiency by shifting significant administrative burden off of clinicians and onto specialized administrative staff. A shared call center would allow for effective triaging of patients, dispatching of mobile clinicians and by centrally coordinating the search for available bed space for patients in need, an activity currently requiring significant levels of effort. Some upfront costs would likely be incurred as a consequence of this effort however,

[1] Kappy Madenwald, Massachusetts Department of Mental Health, Emergency Service Program Performance Improvement Project (April 2, 2014).

these costs would be offset by clinician productivity improvements and longer term program savings.

On-Call and Overtime Restructuring: estimated $223,877 operating expense reduction over the three transition years

An examination of overtime levels was performed for fiscal year 2015 to assess the SE ESP's level of on-call and overtime expenses. The programs paid $787,766 in overtime to eligible employees during this period (approximately $5,865 per full time equivalent (FTE)). Much of this overtime pay was associated with on-call phone consultations and was exacerbated by the structure of the compensation model outlined in the collective bargaining agreement with the program's largest labor organization.
DMH recently implemented operational changes to its clinical on-call procedures in order to reduce the total number of consultations requiring overtime services. Previously, when a patient presented at a DMH location and was in need of a disposition or other intervention from a clinician after hours, an 'on-call' call was made to a clinician. DMH has since attempted to reduce the need for these on-demand calls in favor of holding set-scheduled calls on a regular basis where a single clinician can provide guidance for multiple patients arriving within the previous 24 hours. Additionally, efforts are being made to redistribute the scheduling of shift supervisors to allow their intervention for many overnight arrivals. Beyond these operational changes, proposed changes to the collective bargaining agreement governing overtime compensation would drastically reduce the amount of funds needed for this service in FY16 and beyond. All of these changes taken together would allow the program to maintain all service requirements, adhere to quality standards and reduce costs associated with overtime and on-call wages by nearly 30%.

Runaway Assistance Program: estimated $141,904 operating expense reduction over the three transition years

As a component of the MCI program, ESPs are responsible for providing assistance to runaway youth aged 6-18 through what is known as the Runaway Assistance Program (RAP). Currently, an external vendor provides this service through a yearly contract with the SE ESP. The current contract is based on an estimated volume of 96 RAP encounters per year across the four SE ESP catchment areas. These estimates however are significantly higher than the actual four encounters the program recorded during the first half of 2015. Although the program is new and still growing in terms of overall public awareness, DMH estimates that this program will not exceed 16 total encounters during future years. Given this projected volume, DMH believes its current SE ESP staff has the capacity to administer the RAP services internally, without the support of an external vendor. As a result, this project projects a one-time savings of $141,904 without any corresponding labor expense increases or reductions in program quality.

Staff Realignment: estimated $43,365 operating expense reduction during the first transition year and $126,241 cumulative over the three transition years

65.4% of total expenses across all four service locations are attributed to labor. In comparing SE ESPs to other regions of the Commonwealth, differences in staffing levels and productivity were identified across several areas, most notably among staffing levels of Registered Nurses (RN). The SE ESP program could realize program savings by shifting many responsibilities away from RNs toward more cost effective Licensed Practice Nurses (LPNs) over the transition years. As outlined in the statement of service and in program specifications, RNs are overqualified for many of the tasks they are currently performing, many of which would more appropriately align with the skillset of an LPN. The changes proposed in this intervention would take place as a result of expected program retirements and normal staff attrition.

Revenue Recovery Maximization: estimated $2,554 in additional revenues collected during the first transition year and $89,565 cumulatively over all three transition years

The SE ESP generates approximately $4 million in annual revenue through claims remuneration associated with insured patients seeking care at DMH sites. Current billing processes and FY15 potentially recoverable revenues by denial root cause were examined and opportunities to maximize collections were identified. Three primary causes of lost revenue were identified and assumptions were made on future recoverable possibilities based on potential program redesigns, technology investments and staff training needs. As recovery rates were scaled throughout the transition period, additional costs associated with the revenue recovery process were also included.

Distribution of Laptops: estimated $50,485 operating expense reduction over the three transition years

DMH incurs approximately $100,970 per year in clinician expenses associated with potentially avoidable drive times and mileage reimbursement incurred while performing mobile response services. Many of the hours and mileage associated with these response calls are due to a clinicians need to return to one of the four SE ESP office locations to enter encounter data into DMH's central record keeping systems. In an attempt to reduce this burden and save on program costs, DMH has begun distributing laptops to many of its clinicians to enable remote data entry in a secure and more efficient manner. Based on an analysis of total miles driven and associated reimbursement costs, this study identified the potential total costs savings associated with the use of these laptops among the program's mobile clinicians.

These six interventions together were estimated to accrue a projected net savings for the SE ESP of $904,120 in the first year following implementation and $2,169,111 over the three year transition period envisioned under this exercise. Additional details, assumptions and implications of each of these interventions are detailed throughout this study.

Shared Program Call Center

Overview:
The Southeast ESP locations in many facets, operate as separate entities despite their common management under DMH. This common relationship between the programs could be harnessed to enable some shared activities in an attempt to improve efficiencies and reduce costs.

Each ESP service location independently operates its own phone triage system and works to separately complete administrative tasks and perform bed searches as well as other referral activities. The Commonwealth of Massachusetts does not have a centralized bed search directory. Though one is reportedly under development, currently Clinicians and other staff inside the ESP are required to manually reach out to every known inpatient psychiatric facility as well as other community based providers in an attempt to locate inpatient psychiatric beds for patients in need of services. This activity requires a significant level of effort on behalf of many of the program's Clinicians and other staff. Additionally, many clinicians also spend time on other administrative tasks associated with receiving, transferring and caring for patients. With the establishment of a shared call center, many of these time consuming duties could be handled by a shared set of specialist staff, alleviating the labor burden on many clinicians.

The BMSC location, due to its current technical configuration and physical space capacity, is an ideal location for a potential shared call center. The center would operate between 8 AM to 8 PM Monday through Friday and would be staffed by two Clinical Social Worker (C)s and four Human Service Coordinator (C)s. This location would manage all incoming phone calls for the four program locations. Call center staff would be trained to dispatch clinicians from each of the four locations based on geographic location and need. Additionally, call center staff would manage registration and enrollment tasks associated with requests for services as well as direct bed search activities on behalf of clinicians across all four locations, removing further burden from clinical staff.

As a result of these shared services, it was assumed for the purposes of this study that productivity among the clinical staff would increase nearly 75%, as expressed in terms of encounters handled per shift over the programs transition period. It is anticipated that this shared center would allow for excess clinician capacity, alleviating the need for additional support staff and reducing excess staffing costs. It was projected that the development and use of the shared call center could result in nearly $1,476,743 in program savings over the course of the transition period.

Methodology:

Through program performance analysis, a clinician's productivity rate was observed to be approximately 0.7 encounters per shift (on an FTE basis), with significant additional administrative effort also associated with each of these encounters. As a result of the shared call center, it was assumed that clinicians could increase their ability to field encounters by 25% by the end of the first implementation year, 50% in year two and 75% in year three over baseline year zero levels. This increase in productivity results in an increase in the number of

encounters a clinician is capable of completing per shift, which in turn reduces the need for additional clinical staff. Overall patient volume was estimated to remain fairly stable over the transition period. By the end of the third year of the transition period however, the total number of encounters handled per shift across all programs will surpass current levels.

As outlined in *Table 1* below, this model anticipates the reduction of program's overall staff by 12.1 FTEs in year one, 8.0 FTEs in year two and 5.0 FTEs in year three. Accounting for the need for six call center staff, this would translate to an overall staff reduction of 19.1 FTEs over the programs transition period. Estimated cost savings have been expressed in both cumulative and annual savings.

The positions that will be affected by this productivity increase are the Human Service Coordinator (C)s, which provide many triage services, and the Clinical Social Worker (A/B)s, which provide the mobile services. Across all four programs, triage clinician productivity could result in a reduction of 18.1 Human Coordinator (C) FTEs and mobile clinician productivity increases could result in a reduction of seven Clinical Social Worker (A/B) FTEs, totaling the anticipated 25.1 reduction before netting out existing staff needed for shared call center staff.

Table 1: Projected Staffing Changes

	Year 0	Year 1	Year 2	Year 3
Clinician Productivity Increase	-	25%	50%	75%
Total FTEs:				
Human Service Coordinator (C)	40.1	29	25	22
Clinical Social Worker (A/B)	15.9	14.9	10.9	8.9
Clinician FTE Reduction	**-**	**12.10**	**20.10**	**25.10**

To calculate the cost savings that result from proposed FTE reductions, the average hourly rate of $30.60 for the positions referenced was used. In addition, calculating savings reflect salary payments made based on 40 hour work weeks for 52 weeks in a year (assuming holidays and sick days are compensated). Additional savings in fringe benefit payments were included as well using the FY16 fringe benefit rate of 29.17% for all three years of the transition period.

The shared center would be staffed by two FTEs of Clinical Social Worker (C)s and four FTEs of Human Service Coordinator (C)s, whose corresponding salaries would total approximately $519,522 per year, based on the average annual rates for these positions in addition to the projected Fringe Benefit expenses based on FY16 rates.

Table 2: Projected Annual Costs for Call Center Employees

FTEs	Title	Avg Hourly Rate	Avg Annual Rate	Total Cost
2	CSW C	$ 38.50	$ 80,100	$ 160,200
4	HSC C	$ 29.00	$ 60,500	$ 242,000
			Fringe Rate @ 29.17%	$ 117,322
			Total Annual Cost	**$ 519,522**

An additional $100,000 of equipment, technology and training costs will also be necessary. This cost has been distributed evenly throughout the three year period. Yearly and total savings associated with full implementation of the centralized call center as well as potential cumulative savings achievable over the three year transition period are outlined in *Table 3.*

Table 3: Projected Productivity Savings

	Year 1	Year 2	Year 3	Total
Cost Adjustment Factor		3.07%	3.04%	
Projected Productivity Savings	$994,791	$677,902	$423,572	$2,063,575
Projected Call Center Costs	($519,522)	$ -	$ -	($519,522)
Additional Costs	($33,334)	($33,333)	($33,333)	($100,000)
Net Savings	**$441,935**	**$644,569**	**$390,239**	**$1,476,743**

On-call and Overtime Restructuring

Current State:

Overtime levels were examined to identify possible inefficiencies among the SE ESPs compensation structure. In the previous budget year (FY15), the program paid a total of $787,766 in overtime, or approximately $5,865 per FTE. One quarter of this overtime was associated with clinical on-call consultations. Under the current on-call process, each consultation request is responded to at the time it is received by a clinician who is on standby. This standby pay is a substantial cost to the ESPs. Under the current collective bargaining agreement, clinicians on standby are compensated for their services in two hour increments of overtime pay regardless of the length of time of the actual call. Any calls exceeding two hours in length result in the clinician receiving an additional two hours of overtime compensation again, regardless of the actual length of the call.

In an attempt to reduce these overtime expenses, DMH recently began implementing changes to the clinical on-call consultation procedures. These efforts focused on establishing 1 hour on-call windows on both Saturday and Sunday to review dispositions from the previous 24 hours in lieu of on-demand calls based on patient arrival and in accordance with program operational specifications. An additional level of efficiency may also be gained by modifying the process through which shift supervisors are scheduled. As a proxy clinician for many on-call encounters, shift supervisors can provide needed services which if unavailable, require the assistance of an on-call clinician. All of the SE ESPs have second shift supervisors on site Monday through Friday who provide clinical consultation during their regular shift. However there are frequent gaps in supervisory coverage that result from scheduling issues, vacation time, and sick time. Establishing a single supervisor to provide clinical consultation for multiple programs at any given time would assist with ensuring that any variations in volume as a result of on-call needs would not drive additional overtime expenses.

These procedural changes will greatly reduce the need for on-call clinicians throughout the week and weekend. However the primary means through which the program could realize savings is through a change to the compensation structure for on-call services. In lieu of paying a minimum of two hours of pay at the employee's regular hourly overtime rate for any on-call work, or four hours of time (should the call require an in-person visit at the site of care), the SE ESP program could structure on-call coverage around a single flat $500 per week fee to each clinician providing a full seven day stand-by on-call consultation service across the four ESP service areas.

Through a restructuring of the SE ESP on call procedures and this shift in compensation to a flat weekly fee for coverage, the program could save $223,877 on costs previously associated with on-call consultations and overtime charges over the programs transition period.
As the vast majority of these calls require a simple disposition of patient condition, they do not require an in-person encounter and most can be adjudicated over the phone. However a minority of encounters do require additional in-person assistance. For the purposes of this study, it was assumed that this volume of in-person encounters would remain constant. As such, the additional in-person on-call compensation levels would not change.

Methodology:

Payroll data was examined for employees working at the four Southeast ESP programs for FY15. The Corrigan ESP was not found to have any unnecessary on-call costs associated, and therefore was left out of this analysis. The summary of the expenses related to on-call services are included in Table 4 over the course of six payment periods (12 weeks):

Table 4: Overtime and Standby Compensation by Employee

Program	2 – Week Period						TOTAL
	Weeks 11 & 12	Weeks 9 & 10	Weeks 7 & 8	Weeks 5 & 6	Weeks 3 & 4	Weeks 1 & 2	
Cape & Islands	$1,055	$1,436	$1,062	$2,381	$930	$1,473	
Brockton	$1,252	$4,795	$1,431	$3,892	$6,947	$780	
Norton	$2,882	$2,905	$7,203	$3,181	$5,308	$8,751	
Total	$5,189	$9,136	$9,696	$9,454	$13,185	$11,004	**$57,664**

Table 5: Cost Projections and Proposed Savings

	Average Cost per Week	**Projected Cost per Year**	**Proposed Savings**
Current Structure	$4,805	$249,877	-
Proposed Structure	$500	$26,000	$223,877

The data in these tables indicate a total expense of $57,664 in overtime and standby pay over the 12 week observed period. Annualizing this data lead to total estimated $249,877 worth of associated program costs to cover all on-call consultations. Assuming 12 weeks per quarter, this estimates total costs at $4,805 per week as exhibited in Table 5.

A key requirement to reducing the weekly call volume would involve expanding the roles of supervisors to provide consultation across multiple service areas. There will be no additional costs associated with the expansion of roles. Closing supervisory gaps will ensure that the average call volume between Monday and Friday remains low, as the lack of adequate supervisory coverage was the cause of several of the clinical consultation calls that occurred during the second shift.

With the proposed rate change for these on-call services and the revision of the on-call consultation procedure, the average cost per week would drop from $4,805 to $500 as the reduced call volume resulting from the procedural change will allow one designated clinician to field on-call consults across all four programs. This brings the projected cost per year down from $249,877 to $26,000 for an annual savings of 90% over baseline costs, or $223,877.

Runaway Assistance Program

Current State:

The Runaway Assistance Program (RAP) is designed to assist police officers assisting runaway children between the ages of 6 and 18. RAP provides a safe place where runaways can receive care on a voluntary basis until a transfer can be arranged to another appropriate service provider. The RAP program provides a safe location for these children and also an opportunity to conduct assessments to identify signs of mental illness or other areas requiring additional follow up.

Currently, the vendor Community Counselors of Bristol County (CCBC) is contracted to administer the RAP across the SE ESPs four service areas. Under their current contract, CCBC receives $141,904 annually for administering this program. DMH believes that due to the increasingly limited use of this program however, RAP no longer needs to be administered by an external vendor and instead could be administered by existing internal DMH staff. This would eliminate all of the $141,904 dollars spent annually to externally administer this program with no corresponding labor cost increases or reductions in service availability or quality.

Methodology

The current RAP contract with CCBC assumes a need for two RAP assessments to be conducted within each ESP location each month for a total of 96 annual assessments. Three full time staff members are provided under this contract, one responsible for providing primary on-call services and two serving as-needed support staff roles.

Actual volumes for RAP however have been significant lower than initial projections totaling just four encounters during the first two quarters of the 2015 calendar year. The program was not fully operational until April of that year however, so these anticipated volumes were inflated when annualizing to project 2016 annual volumes of 16 total encounters. This increase is based primarily on anticipated promotion of the program during the remaining months of 2015. Given these expected volumes, the SE ESP believes that existing staff capacity is capable of providing the continual supervision required during RAP encounters starting in 2016 and throughout the three year transition period.

As the current contract has only a single year term, this exercise assumes only a one year savings of $141,904 across the three year transition period.

Table 6: Proposed Savings

	Year One	Year Two	Year Three	Total
Net Revenue Gain	$ 141,904	$0	$0	$141,904

This contract has also not been included in future budget projections across the SE ESP program and thus was not included in the adjusted totals within the final cost forms in this submission packet.

Staff Realignment Analysis

Current State:

As labor remains the largest operating cost for the SE ESP programs, an examination of overall staffing patterns was conducted to identify any inefficiencies which if corrected, could result in program savings. When comparing the current SE ESP's staffing model to those outlined in the program's operational specifications, differences in staffing emerged indicating that certain realignments could be pursued resulting in program savings without a corresponding drop in program quality or service level. The largest impact in this area would be realized through the shifting of certain responsibilities from RNs to more cost-effective LPNs.

Two of the four SE ESP programs in particular, BMSC and Norton, staff RN's in positions that could be staffed with more cost-effective LPNs. By shifting these responsibilities following expected retirements and other natural staff attrition rates, the total dollars saved following this shift of service level positions is projected at $123,776 over the three year transition period.

Methodology:

The current budget year (FY15) is represented as "Year 0" in this modeling exercise. In Year 1, as a result of forecasted attrition among the nursing staff at BMSC and Norton ESPs, positions currently staffed by Registered Nurse IIs will begin to be filled by Licensed Practical Nurse IIs. The estimation is that one FTE for the Registered Nurse II position will be vacated per year, and the associated responsibilities could be assumed by increasing the number of Licensed Practical Nurse IIs by one FTE. This shift would continue in both years two and three across the BMSC program (table 7), while the Norton program, with only two Registered Nurse IIs, will have completed the transition by the end of the second year (table 8).

Table 7: Brockton Transition of RNs to LPNs

	Year 0		Year 1		Year 2		Year 3	
	FTEs	Total Salary	FTEs	Total Salary	FTEs	Total Salary	FTEs	Total Salary
Registered Nurse II	6.8	$ 864,971	5.8	$ 769,920	4.8	$ 656,734	3.8	$ 535,726
Licensed Practical Nurse II	3.0	$ 225,551	4.0	$ 313,924	5.0	$ 404,450	6.0	$ 500,100
Yearly Savings			**$6,678**		**$22,660**		**$25,359**	

Note that the yearly savings in Year 1 for BMSC is low due to the increase in fringe benefit rates for FY16. This FY16 fringe rate is used in the calculation of fringe benefits in Year 2 (FY17) and year 3 (FY18) as the rates for these years have not been released at the time of this analysis. Estimated cost savings could differ if fringe rates for transition years fluctuate significantly from predictions.

Table 8: Norton Transition of RNs to LPNs

	Year 0		Year 1		Year 2		Year 3	
	FTEs	Total Salary	FTEs	Total Salary	FTEs	Total Salary	FTEs	Total Salary
Registered Nurse II	2.0	$267,594	1.0	$139,627	0.0	$ -	0.0	$ -
Licensed Practical Nurse II	4.0	$299,451	5.0	$390,730	6.0	$483,268	6.0	$497,965
Yearly Savings			**$36,687**		**$47,089**		**($14,697)**	

Note that the decrease in savings for the Norton program during the third year of the transition period is a result of increasing salaries per the cost of living adjustment, not a change in staffing level.

Once potential savings have been calculated based off of staffing realignment, the effect on the cost forms is calculated by applying the CMS Market Basket rate for the cost of living adjustment.

Table 9: Total Transition Costs and Savings for BMSC and Norton Combined

	Year 0		Year 1		Year 2		Year 3		Total
	FTEs	Total Salary	FTEs	Total Salary	FTEs	Total Salary	FTEs	Total Salary	
Registered Nurse II	8.8	$1,132,565	6.8	$909,547	4.8	$ 656,734	3.8	$535,726	
Licensed Practical Nurse II	7.0	$525,002	9.0	$704,654	11.0	$ 887,718	12.0	$998,065	
Yearly Savings			**$43,365**		**$69,749**		**$10,662**		**$123,776**

Table 10: Cost Adjustment Factor

	Year 1	Year 2	Year 3	Total
Cost Adjustment Factor		3.07%	3.04%	
Previous Yearly Savings		$69,749	$10,662	
Cost Adjustment		$2,141	$323	
Yearly Savings	**$43,365**	**$71,890**	**$10,985**	**$126,241**

Assumptions and limitations:

Throughout this modeling exercise, several assumptions were made in determining final estimated savings. The total estimated amount of cost savings in this project has the potential to vary as the projections for the following categories of employee income were based on annualized data extracted from the DMH payroll system for FY14 (previous budget year):

- A07 (shift differential pay)
- A08 (overtime pay)
- AA1 (salaries: supplemental)

Should a significant variance occur within the last quarter of the year, many of the overall estimates for this particular study would be outside actual spending levels.

Additionally, this modeling exercise assumes the full implementation of the shared call center proposed earlier in this study. This call center would be essential in realizing the cost savings associated within this project in addition to savings associated with stand-by pay (known internally as A06) associated with nursing staff.

Finally, this exercise assumes no additionally incurred expenses related to training or other on-boarding costs typically associated with hiring new employees. It was assumed that due to position transitions coinciding with anticipated normal staff attrition and retirement events that these costs would be associated with normal operations regardless of any intervention and therefore did not need to be factored into this model.

Revenue Recovering Maximization

Current State:

Although the ESP program services significant numbers of uninsured and only provides a limited set of billable services for its patients, the program does submit claims for remuneration to both commercial and public payers. A review of a FY15 revenue recovery report as provided by the program's revenue cycle vendor highlights some potentially recoverable revenues which, should the program pursue substantial interventions, could be obtained, boosting the program's overall collection rates.

No potential recoverable revenues were identified across three of the programs service sites, however the BMSC catchment area did have associated recoverable revenues identified. The three areas most responsible for lost revenues, stemming from an analysis of denied claims, were:

- Claims submitted under clinicians who were either not enrolled in Medicare (a required condition for payment) or who were enrolled later than the service date;
- Claims submitted that did not have the appropriate prior authorizations included; and
- An 'other' category that was primarily self-pay referrals.

The root causes of these types of denials are typically associated with a number of operational aspects. Denials linked to improper clinician certification or licensure are typically due to out-of-date provider lists or the lack of a tool used in the claims submission process which reviews claims for this type of denial source. The ESP program would need to not only invest in obtaining or improving upon these processes, but would also need to retrain its billing personnel in their use and upkeep.

Attempting to mitigate denial volumes associated with prior authorizations also requires significant staff, process, and technology interventions. Prior authorizations are written orders from referring physicians that are used by insurance companies to ensure that a procedure is warranted, or commonly referred to as medically necessary. The collection and proper review of prior authorizations are typically carried out by registration staff who work in the patient access area of any provider location. These staff members are responsible for reviewing all patients (unscheduled and scheduled) records to ensure that the proper prior authorization has been given prior to receiving care. If those prior authorizations are not present in a patient record, registration staff are typically required to reach out to referring physician offices to obtain them. Additionally, scheduling and billing systems also need to be equipped to store and transfer authorization information in order to ensure that submitted claims contain this requisite piece of information.

The 'other' category of denials was primarily driven by individuals who received care and still carry a balance on their account. Typically this is associated with a practice's failure to collect co-pays or other out-of-pocket expenses from the patient at the point of care. This category also carries balances associated with individuals who were truly uninsured but through a payment program have the ability to pay off their balances in installments. It was assumed for

the purposes of this study based on typical industry collection rates that the revenues associated with this third bucket would not be feasibly recoverable.

This analysis acknowledges that improvements may require several years of technology investment, process redesign and extensive training initiatives before benefits could be fully realized; therefore, projections were scaled over a three-year implementation period. Projected revenue gains were forecasted over the three-year transition period as follows:

Table 10: Proposed Net Savings

	Year One	Year Two	Year Three	Total
Net Revenue Gain	$ 2,554	$ 25,268	$ 61,743	$ 89,565

Methodology

DMH submitted $8,634,848 in total claims during the FY15 service year. Overall potentially recoverable revenues during this time were identified as totaling $363,222.[2] Table 11 outlines these potentially recoverable revenues by root denial cause:

Table 11: FY15 Potentially Recoverable Revenue

Medicare Non-Enrolled Clinician	$44,274
Denial for No Authorization	$132,206
No Self-Pay Referrals	$186,742
Grand Total	**$363,222**

The table below outlines potentially recoverable revenues during the three-year implementation period should a robust intervention be successfully implemented across the SE ESP revenue cycle program.

The key assumptions driving possible recovery rates were:

- Medicare Non-Enrolled Clinician: It was assumed that given efforts to retrain staff, develop and maintain better record-keeping systems and implement new billing processes, the ESP could recover 50% of those claims previously denied for this root cause.
- Denials for No Authorization: Claims associated with a lack of prior authorization root cause were assumed to grow in terms of potentially recoverable revenue by 25% in year one, 50% in year two and 75% by year three. As previously stated, this would require ambitious program process redesigns and retraining effort of both patient access (registration staff) as well as billing (claim coding and submission staff) staff in addition to technology investments to update scheduling and billing systems to ensure claims are not submitted without requisite authorizations attached.

[2] Potentially recoverable revenue report generated by UMASS as DMH revenue cycle oversight vendor

- No Self Pay: It was assumed that none of the identified $186,742 total would be recoverable given the typical income levels of patients seen across the SE ESP catchment area and the operational difficulties associated with contacting and recovering out-of-pocket payments from the uninsured and underinsured.
- A 1.5% increase in revenues is assumed during each year of the transition period.
- An additional $100,000 cost for implementation and training was also included as a straight line amortized cost across all three transition years.
- Cost of living adjustments of 3.07% and 3.04% are applied to years 2 and 3 respectively to coincide with adjustments in the cost forms as well.

Given these assumptions, overall collections rates per year were assumed as follows:

Table 12: Recoverable Revenue by Root Cause

	Year 1	Year 2	Year 3	Total
Medicare Non-Enrolled Clinician	$22,469	$22,806	$23,148	$68,423
Denial for No Authorization	$13,419	$34,050	$69,122	$116,592
No Self-Pay Referrals	$0	$0	$0	$0
Training and Startup Costs	($33,334)	($33,333)	($33,333)	($100,000)
Total	$2,554	$23,524	$58,938	$85,015
Cost of Living Adjustment		$1,744	$2,805	$4,549
Total	**$2,554**	**$25,268**	**$61,743**	**$89,565**

Laptop Distribution

Overview:

The SE ESP reimburses many of its mobile service providers for their travel time and mileage associated with providing mobile services. Staff must frequently commute between the intervention location and the program office to document client encounters. Distributing laptops to all mobile clinicians to enable mobile documentation use through a secure method would build efficiencies for the Cape and Islands and Norton ESPs and result in overall cost savings from reduced work hours and overtime. Due to the short distances between most encounters occurring within the BMSC and Corrigan ESP locations, reimbursement and travel times were immaterial to overall program costs and not considered in this study.

Methodology:

A study was conducted by DMH to determine the total distance driven (in miles) by clinicians for on-call interventions over the course of a year. To estimate annual reimbursement costs associated with mileage, DMH compiled clinician travel distance for all interventions during fiscal year 2015 which totaled 185,104 clinician-miles per year. A portion of the potential cost savings achieved through the distribution of laptops would stem from the reduction in cost related to the reimbursement of mileage for staff. Based on the current mileage reimbursement rate of $0.45 per mile, DMH spends $83,297 per year on mileage reimbursement alone.

In addition to mileage reimbursement, DMH is required to provide reimbursements for regular use of vehicles incurred by clinicians incurred during trips. Compensation for this 'wear and tear' for the two programs totaled to $17,674 for total expenses in FY15 of $100,971:

Table 13: Annual Mileage and Associated Costs

Program	Annual Miles	Mileage Cost	W&T Cost	Total Cost	50% of Total
Pocasset	136,168	$61,276	$13,089	$74,364	
Norton	48,936	$22,021	$4,585	$26,606	
Total	**185,104**	**$83,297**	**$17,674**	**$100,970**	**$50,485**

In total, the Cape and Islands and Norton ESPs spend a combined $100,970 annually on costs related to staff travel. Due to intervals in the cadence of encounters, it was assumed that clinicians were typically driving to the location of the intervention, and then returning to their practice locations. The use of laptops would reduce the total number of miles driven by clinicians and associated costs by 50%, as clinicians will no longer need to complete clinical documentation for each encounter while physically at their home office. The Norton and Cape ESPs could realize a combined $50,485 in yearly cost and productivity savings through the distribution and use of laptops for clinicians. This analysis assumed full distribution of laptops across all clinicians and may include some savings already achieved through previously distributed clinician laptops. There are no purchase costs related to project implementation as these laptops have previously been purchased by DMH.

Addendum to the Management Study

Proposed Changes to Current Collective Bargaining Agreement

The Service Employees International Union (SEIU) Local 509 developed two proposals with the purpose of increasing efficiency and decreasing costs associated with the Department of Mental Health's Emergency and Mobile Crisis Intervention (ESP/MCI) Services in Southeastern Massachusetts.

- Proposal #1 is an amendment to the party's collective bargaining agreement
- Proposal #2 includes a series of proposed changes for inclusion in the management study.

This addendum addresses each proposal and comments on the feasibility and/or potential cost savings that could be achieved through the implementation of the proposal.

Proposal #1

This proposal is a contract amendment to Article 7 of the parties' collective bargaining agreement. The amendment proposes that call-back pay be compensated in the same structure as stand-by pay, and that the structure be changed to a $500 payment for a stand-by period with a duration of 7 days.

The management study, beginning on page 7, includes a reduction in the need for stand-by hours through a restructuring of supervisory hours and the inclusion of one designated employee that would handle clinician questions from all four programs. The proposal for a payment structure of $500 per week for these services would reduce these annual costs to $26,000, resulting in a cost savings of $223,877 related to costs previously associated with on-call consultations and overtime charges.

Proposal #2

The SEIU Local 509 on behalf of DMH ESP/MCI members are proposing a series of changes to be included in the management study. These proposals have been reviewed and assessed for feasibility.

1. **The creation and implementation of a centralized call center for On-Call Consultation**

    - **Problem**: Currently consultations are directed to an on call supervisor who then must address the situation as necessary. Each DMH catchment area currently must ensure that at least one qualified supervisor is available 24/7. This high demand in conjunction with the current call-back pay compensation leads to significant financial expenditure.

    - **Union Proposal:** The creation of a centralized call center would allow for incoming calls from all catchment areas to be filtered through one supervisor on-call. The one supervisor on-call would provide coverage for all the ESP sites

where there is not a psychiatrist providing this coverage. Staffing of this call center would be on a rotating schedule from the pool of qualified on-call supervisors from each catchment area. The supervisor on call would receive a weekly flat rate of compensation, pro-rated for coverage that is less than one week.

- **Assessment of Feasibility:** This perceived problem has been addressed within the *Centralized Call Center* section of the Management Study beginning on page 5.

2. Introducing an non-clinical support position for ESP/MCI Programs

- **Problem**: Under the current system, clinicians serve multiple clerical functions within the ESP programs in addition to their core function of conducting client evaluations. Currently, clinicians are forced to juggle their clinical work with other more clerical functions, such as faxing, data entry, and conducting bed searches. Technology that allows the clerical staff to enter the bed type during a bed search instead calling each place for a bed would also save considerable time.

- **Proposal:** Create a BA level position in order to handle duties that do not require the expertise of a trained crisis clinician. Tasks such as bed searches, filling out encounter forms for MBHP, getting insurance authorizations, file storage and faxing of documents, as well as other clerical duties would fall under the newly created position's responsibilities. This would enable clinicians to be more efficient with their travel time, cutting down on the response time to get to an evaluation, and being more available to be out doing evaluations. Because the clerical position would be at a lower pay grade, DMH would no longer pay for licensed clinicians to do clerical duties.

- **Assessment of Feasibility:** This perceived problem has been addressed within the *Centralized Call Center* section of the Management Study beginning on page 5.

3. Increasing technological capabilities in order to improve response time

- **Problem:** Currently the Brockton, and Cape and Islands catchment areas don't have adequate technology and this impedes their ability to work efficiently. Not having up to date functional laptops or tablets mean that clinicians are forced to trek back to their base of operations in order to write up every evaluation as well as the associated paperwork. This current system slows down a clinician's ability to be out in the community doing additional evaluations. Not only does this impact response time to a subsequent evaluation, it incurs unnecessary mileage costs.

- **Proposal:** Working laptops, or tablets would enable the clinician to enter the data once the evaluation is completed, avoiding the travel time needed to return to the office to enter data. Once the data is entered on the laptop or tablet, the clinician would go directly to the next evaluation, saving both time and mileage costs.

- **Assessment of Feasibility:** This perceived problem has been addressed within the *Laptop Distribution Resulting in Reduced Inefficiencies and Costs* section of the Management Study beginning on page 15.

4. The Offices on the Cape are not centrally located.

- **Problem:** Currently the Cape ESP offices are located in Pocasset and are not centrally located resulting in increased travel time for clinicians. This directly impacts response time due to clinicians needing to travel back and forth multiple times in a work day, also incurring avoidable mileage costs.

- **Proposal:** A centrally located office in Hyannis would alleviate the problem. Such an office would allow clinicians to spend less time on the road and more time evaluating clients; this would also serve to directly decrease response time, and reduce mileage reimbursement costs.

- **Assessment of Feasibility:** In the event that privatization does not occur, DMH anticipates renting a location in Hyannis and transitioning to this location in FY17. These rental costs have been captured on the Cost Forms for the Pocasset program.

5. Lack of coverage in Brockton

- **Problem:** Currently in Brockton there is a four hour coverage gap during third shift. This results in greatly increased wait times for clients who are seeking help during these hours.

- **Proposal:** Ensure that there is a clinician available 24/7 in order to assist people who are in crisis during normally unstaffed hours.

- **Assessment of Feasibility:** The current coverage gap cited in Brockton is the result of staff vacancies which, when filled, would eliminate the gap. There is no cost savings associated with this proposal.

6. Reintroducing comp time as an alternative to overtime.

- **Problem:** The collective bargaining agreement allows Management to determine whether or not an employee will be compensated through comp time or overtime pay. Management's current practice requires that the employee be compensated in overtime pay rather than comp time. The overtime costs have been exorbitant under this practice.

- **Proposal:** The Union is proposing that the practice allow for comp time accrual in lieu of overtime payment. Issuing comp time versus overtime would still be at Management's discretion, but changing the practice would allow for more flexibility to further reduce costs. The current overtime accounts for a significant portion of the ESP's costs; a system that encourages comp time would work towards reducing overall spending. This issue has been discussed between the Union and Management previously, and the Union proposes that it be revisited.

- **Assessment of Feasibility:** If implemented, this proposal could result in a cost increase for DMH. In the event that the use of staff comp time results in insufficient staffing for that shift, overtime costs would be incurred.

7. There is currently redundancy in managerial positions.

- **Problem:** Currently redundant or superfluous management positions create an environment which is both confusing for clinicians as well as both fiscally and operationally inefficient. For example, the position of MCI Area Director may be an unnecessary position with responsibilities that are duplicated by the MCI Site Program Directors, or easily transferred and within the skill set of the MCI Site Program Directors.

- **Proposal:** Eliminating the position of MCI Area Director who covers all catchment areas would free up resources. Currently four Clinical MCI Site Program Directors, staffed by highly skilled, independently licensed clinicians provide oversight and are qualified to incorporate any additional functions currently performed by the MCI Area Director. Additionally, the MCI Site Program Directors are not supervised by the MCI Area Director, and attend many of the same MBHP and MCI statewide meetings.

- **Assessment of Feasibility:** The *Centralized Call Center* section of the Management Study (page 4), proposes a solution to streamline processes among the four DMH ESPs to improve clinician productivity. It is anticipated with the increased productivity and the subsequent reduction of redundant staff as proposed in this section, there will be necessary adjustments to staff responsibilities, while the coordination of functions across the four program sites would still require area-based oversight.

8. Inflexible scheduling results in increased overtime.

- **Problem:** Not all Site Managers support flexible schedules. When employees are forced to regularly work shifts that align poorly with the needs of the workplace, overtime is used as the fall back for staffing resulting in higher than average costs.

- **Proposal:** Having flexible staffing patterns, such as those used at Corrigan Mental Health Center in Fall River, would allow for part time personnel as well as full time staff to easily switch shifts, creating a system that is conducive to minimal overtime usage.

- **Assessment of Feasibility:** This is addressed in the *On-Call and Overtime Restructuring* section of the Management Study beginning on page 7.

9. Current billing practices do not capture the full scope of billable activities.

- **Problem:** Currently DMH ESP miss billing opportunities because there is little formal training, or emphasis placed on the billing process. Funds are being lost due to inattention to what is actually billable.

- **Proposal:** A comprehensive seminar in conjunction with updated training for new employees would ensure that all clinicians are billing properly. Improved knowledge of the system would serve to increase reimbursement simply by billing for services that are already provided by clinicians. Accurate billing would provide revenue needed to upgrade more efficient technology such as laptops or tablets.

- **Assessment of Feasibility:** This perceived problem has been addressed within the *Revenue Recovery Maximization* section of the Management Study beginning on page 12.

10. There is no predictable way to handle surges in workflow.

- **Problem:** There is no way to adequately prepare for the natural surges in workload that accompany the ESP position. Some days will have as few as four calls while others may have ten times that number. This requires that all areas maintain enough personnel on staff should the volume on any given day be high.

- **Proposal:** An employee who is hired to be a “floater”, and who could cover all catchment areas, would greatly assist in this process. The “floater” employee would travel, as needed, to the catchment area(s) that were currently receiving the highest volume of calls. Creating one or two positions that are “floaters”

would also allow for coverage when there are multiple staff out on either discretionary or sick leave, and would allow for sufficient staffing during these times. The result would be a functionally more robust staffing pattern that reduces overtime costs.

- **Assessment of Feasibility:** This proposal may improve response times during peak demand but would not represent a cost savings for the purpose of the management study.