

## A FOCUSED DISEASE MANAGEMENT STRATEGY FOR MISSOURI HIGH-RISK/HIGH COST PATIENTS WITH CO-OCCURRING MEDICAL AND BEHAVIOR DISORDERS

Lewin has recommended that MoHealthNet focus care coordination and disease management interventions more intensively on select groups of high risk/high cost participants. In response to this recommendation APS has further differentiated between those where intervention is likely to make a difference and participants who are unlikely to improve.

### APS Risk Stratification Differentiates Members Based on Need

3 Sample Patients Stratified by Need

2 Yrs Data	Member A PMPM Top 5% Cost \$3,950 Intense Intervention	Member B PMPM Top 20% Cost \$2,100 Moderate Intervention	Member C PMPM Top 5% Cost \$3,990 Basic Intervention
Diagnoses	Diabetes Asthma Depression	Diabetes Depression	Diabetes ESRD
PCP Visits/Year	1	3	4
ER Visits/Year	5	2	0
MPR	Diabetes .25; Asthma .10; Depression .50	Diabetes .80 Depression .80	Diabetes .80
Keeps Medical Appointments	<50% of the time	<50% of the time	90% of the time
IP Days	5	3	5
Social Services	Stable housing; no social support; no transportation support	Unstable housing; limited transportation	Stable housing; access to transportation

PMPM is “per member, per month” which is a measure of total cost of care

MPR is the “Medication Possession Ratio” which is the portion of time a person has filled their medication prescription (.25 means they had filled that prescription 25% on the time). Below 25% is considered non-adherent and leads to poor outcomes.

Groups A (red) and B (yellow) are characterized by high use of ER and inpatient, low use of primary care, and/or low adherence to medication and scheduled appointments. Group C (green) remains high cost in spite of good adherence to primary care and medication. Additional intervention is unlikely to lower their risk or costs.

Group A (red) consists of 1355 persons with a serious mental illness (SMI) and 966 (87%) are not enrolled in a CMHC or getting Mental Health case management and community support. Their average annual cost is \$47,400 per person or \$45.8M total for those with SMI not getting CMHC services.

Group B (yellow) consists of 4694 persons with a serious mental illness (SMI) and 2468 (59%) are not enrolled in a CMHC or getting Mental Health case management and community support. Their average annual cost is \$25,200 per person or \$69.9M total for those with SMI not getting CMHC services.

**The combined total Medicaid cost for both groups of persons with SMI not getting CMHC services is \$115,700,000.**

Several cost analysis show that for persons with SMI total healthcare costs (including MH case management and community support) decrease by 15-20% after entering CMHC case management and community support service(CMHC-CM). This CMHC impact of reducing health risks and costs is consistent with finding only a small portion of CMHC patients in the APS selected high risk groups which have a very high portion of patients with SMI diagnoses. CMHC patients do better and cost less over time.

**There is a potential savings of \$17-23M if these high risk groups were to receive CMHC MH case management/community support.**

As a result the Department of Mental Health (DMH) proposes that the high-risk group A (red) and B (yellow) members with SMI should receive more intensive care coordination through CMHC-CM to increase the likelihood of better health outcomes and to moderate the high health costs associated with group members.

DMH believes that the enhanced levels of care coordination provide the highest chance of better health outcomes while significantly lowering annual per-consumer costs below current per-consumer expenditure levels.

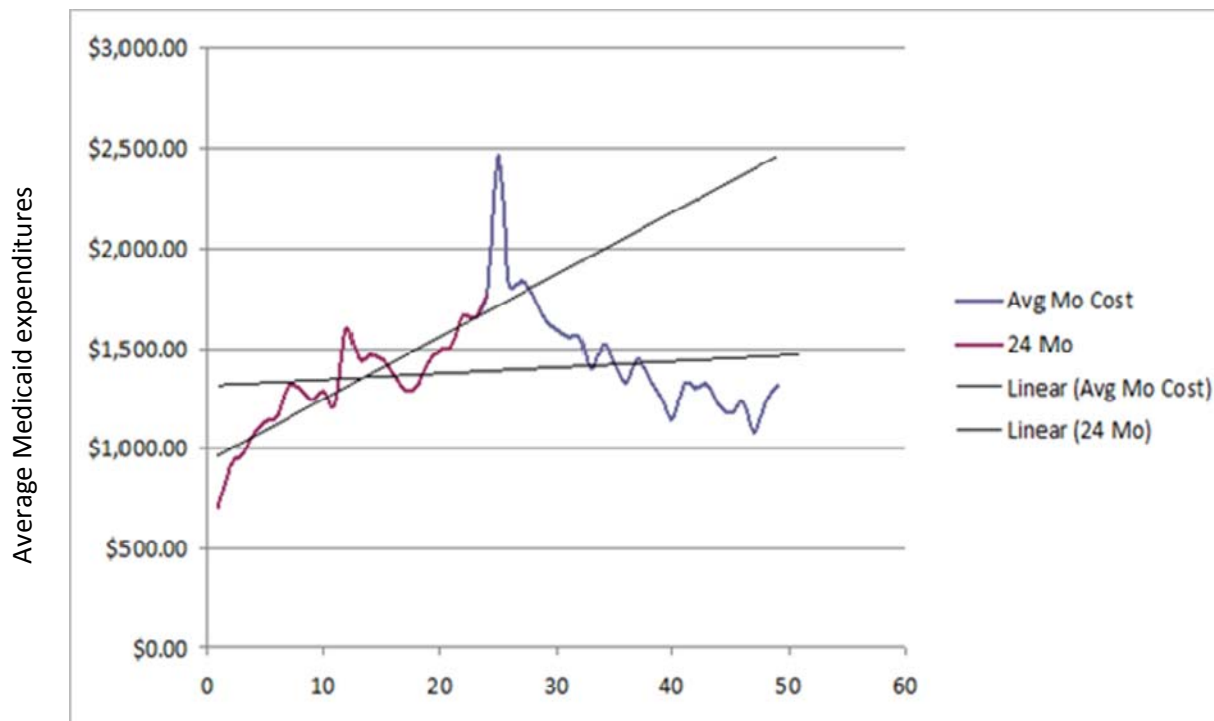
DMH does not currently have sufficient GR allocation to expand CMHC-CM to serve the additional 966 Group A and 2774 Group B high risk/high cost persons. DMH proposes that MoHealthNet(MHN) provide GR match for the CMHC-CM to these groups.

## Estimation of Potential Savings

For the first analysis, the total Medicaid costs were examined pre- and post-enrollment in CMHC-CM services. The persons selected were 636 patients who were newly enrolled in Missouri Medicaid's CMHC-CM program. Patients were included if they had 9 months of Medicaid claims in each of the two preceding years, a diagnosis of severe mental illness, a history of psychiatric hospitalization or multiple emergency room visits, and functional limitations as a result of their mental illness. The exact enrollment date for CMHC-CM services varied from client to client, which minimizes the impact of bias due to changes in the healthcare delivery system at specific points in time or over the study period. Average total monthly Medicaid costs were calculated for the month of CMHCCM enrollment, the 24 months prior to enrollment, and the 24 months following enrollment for each client. Linear regression trend lines were then calculated on those pre-CMHC-CM and post-CMHC-CM cost data.

**Figure 1 -Total HealthCare Utilization Per User Per Month**

**Pre and Post Community Mental Health Case Management**



The second analysis is of our 6500 clients that were in CMHCs and eligible for APS program. We used the same model and time period as Mercer did on the APS program. We know the major impact was the CMHC, as even though they were eligible for the APS program, less than 20% were actually enrolled in the APS program. So the cost savings is 25 million of trend for 6500 clients with multiple

medical conditions. The cost of the CPRC services was included in the pre-post period. In addition to off trend we had ACTUAL year over year savings in pharmacy and inpatient.

### INTERVENTION SAVINGS OFF TREND

	CCIP Program (per MHN report)	CCIP Clients in CMHC-CM
Base Period PMPM (CY2006)	\$917	\$1,556
Expected Trend	16.67%	16.67%
Expected Trend PMPM with No Intervention	\$1,069.79	\$1,815.81
Actual Trend PMPM in Performance Period (FY2007)	\$1,054.65	\$1,504.34
Gross PMPM Cost Savings	\$15.14	\$311.47
Lives	86,299	6,757
Gross Program Savings	\$15,682,928	\$25,254,928
Vendor Fees	\$16,622,953	\$0
Net Program Savings	-\$940,025	\$25,254,928
NET PMPM Program Savings	-\$0.91	\$311.47
Net Program Savings/(Cost) as percentage of Expected PMPM	-0.08%	17.15%

### OFF TREND COST SAVINGS FOR CMHC-CM CLIENTS ELIGIBLE FOR CCIP

Category	pre CMHC-CM	post CMHC-CM	Net Change	Percent Change
Pharmacy	\$39,367,496	\$30,154,143	(\$9,213,352)	-23.4%
General Hospital	\$23,140,172	\$21,546,466	(\$1,593,706)	-6.9%
Psych Rehab	\$35,378,951	\$37,467,731	\$2,088,780	5.9%
Psychologist	\$463,069	\$144,434	(\$318,635)	-68.8%
Independent Clinic	\$3,549,715	\$4,324,452	\$774,738	21.8%
Overall	\$101,899,402	\$93,637,226	(\$8,262,176)	<b>-17.2%</b>

Taken together we estimate:

- Year 1 will Break Even – With the additional CPRC and CSTAR costs covered by reduction in over MHN costs trended forward
- Year 2 will yield 10% Savings over year 0 MHN costs trended forward
- Year 3 will yield 15% Savings over year 0 MHN costs trended forward



approximately \$24.61 PMPM ( $\$433,000 \div 1500\text{persons} \div 12\text{months}$ ) at the end of year if the CMHCs meet their goal of reducing the total HealthCare spend enough to cover the cost of the additional BH services. If they do not meet this goal the ITR earnings will be used to offset the increased costs due to the additional BH services.

FY2012 (year 2)

1500 persons yr 1 cohort x \$7876 annual CPRC/CSTAR cost =	\$11,814,000	new BH cost
1500 persons yr 2 cohort x \$8436 annual CPRC/CSTAR cost =	<u>\$12,654,000</u>	new BH cost
	\$24,468,000	total
	\$15,560,425	Fed
	\$8,907,575	GR

***Net Savings off trend = 1500 persons x \$30,990 x 10% = \$4,648,500***

DMH will earn an additional \$856,000 by billing through the Intergovernmental Transfer Rate Reimbursement methodology These funds will be used to pay an incentive bonus of approximately \$23.17 PMPM ( $\$856,000 \div 3000\text{persons} \div 12\text{months}$ ) at the end of year if the CMHCs meet their goal of reducing the total HealthCare spend by at least 5% including the cost of the additional BH services. If they do not meet this goal the ITR earnings will be used to offset the increased costs due to the additional BH services.

FY2013 (year 3)

3000 persons x \$7876 annual CPRC/CSTAR cost =	\$23,628,000	new BH cost
	\$15,026,227	Fed
	\$8,601,773	GR

Net Savings = 1500 persons yr 1 cohort x \$30,990 x 15% = \$6,972,750

1500 persons yr 2 cohort x \$30,990 x 10% = \$4,648,500

***Total net savings off trend = \$11,621,250***

DMH will earn an additional \$826,000 by billing through the Intergovernmental Transfer Rate Reimbursement methodology These funds will be used to pay an incentive bonus of approximately \$22.94 PMPM ( $\$826,000 \div 3000\text{persons} \div 12\text{months}$ ) at the end of year if the CMHCs meet their goal of reducing the total HealthCare spend by at least 10% including the cost of the additional BH services. If they do not meet this goal the ITR earnings will be used to offset the increased costs due to the additional BH services.

