The Evolution of Assertive Community Treatment in Hawaii: Addressing Medical Morbidities Among the Severely Mentally Ill

APS Healthcare | HMSA Blue Cross Blue Shield of Hawaii

Richard S. Chung, M.D.
Hawaii Medical Service Association*

Deborah Juarez, Sc.D.
Hawaii Medical Service Association

Kenneth Luke, M.D.
APS Healthcare Hawaii

Jerome Vaccaro, M.D.
APS Healthcare

Geri Marullo, MSN, DrPH
APS Healthcare Hawaii

INTRODUCTION

According to a Center for Health Care Strategies 2009 report, Medicaid beneficiaries with Serious Mental Illness (SMI) are more likely to have three or more chronic medical conditions than those without diagnosed mental illness. Furthermore, those with SMI die 25 years earlier than the general population. Their increased morbidity and mortality is largely due to treatable medical conditions...and inadequate access to, or inappropriate utilization of, medical care. Recent evidence suggests accelerating rates of mortality and morbidity in the SMI population (Parks, J. et al, 2006).

Assertive Community Treatment (ACT) programs assist those with SMI to live and thrive in community (vs. inpatient) settings and have repeatedly shown reductions in hospitalizations and emergency department use as well as high levels of consumer satisfaction. However, the impact of these programs on individuals' medical co-morbidities has not been as fully explored.

OBJECTIVE

The Hawaii Medical Service Association (HMSA) health plan—which covers the behavioral and medical care of individuals with SMI and offers an ACT program (operated by APS Healthcare)—wanted to explore any lingering fragmentation of medical and behavioral health care for this complex population.

* Dr. Chung was employed by HMSA during the study period. He is now consulting for APS Healthcare.

[1] Neonates and maternity excluded from all analysis.

[2] Limitations to risk adjustment: CDPS was calibrated for full Medicaid populations but is being used on an SMI-only population. Also, CDPS was designed as a payment system but is being used to compare costs and utilization.

[3] The CDPS was developed by the University of California, San Diego; it is a diagnostic classification system and payment scale designed for application to Medicaid populations.

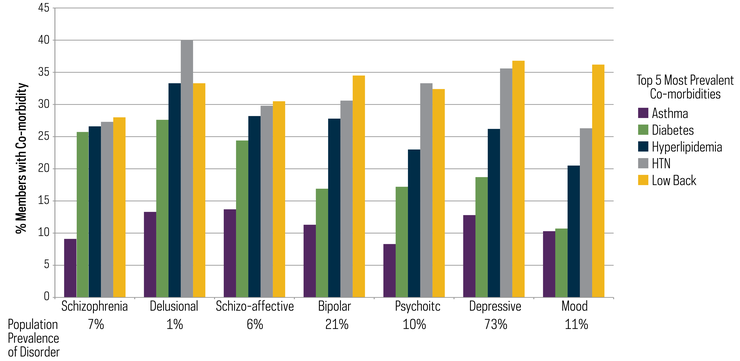
[4] Targeted uncoordinated care savings is calculated by sum(NonEmER total costs + readmits total costs + ACS total costs)/total number of eligible member months.

RESULTS

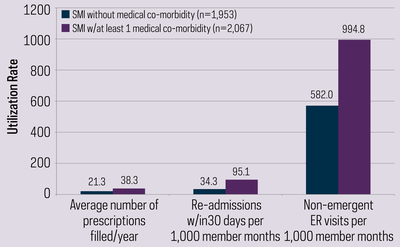
Selected Demographics of Adult HMSA Quest SMI Members with and without Medical Co-morbidity

	SMI without medical co-morbidity (n=1,953)	SMI w/at least 1 medical co-morbidity (n=2,067)
Average Number of Conditions	**2.7**	**3.3**
Average CDPS Risk Score	3.33	3.33
Average Age	40.3	48.8
Percentage of Male Members	43.7%	43.6%
Average Months Eligible	11	11

Prevalence of Medical Co-morbidity in Adult HMSA Quest Members with SMI (n=2,067)

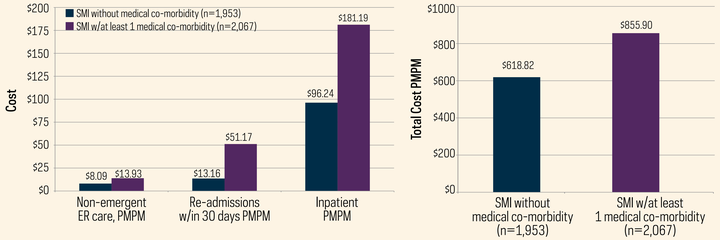


Hallmarks of Uncoordinated Care in Adult HMSA Quest SMI Members with and without Medical Co-morbidity



	Percentage increase in utilization by SMI with medical co-morbidity over those without co-morbidity
Average number of prescriptions filled/year	79.8%
Re-admissions w/in 30 days per 1,000 member months	177.3%
Non-emergent ER visits per 1,000 member months	70.9%

Cost of Care in Adult HMSA Quest SMI Members with and without Medical Co-morbidity



	Percentage increase in cost by SMI with medical co-morbidity over those without medical co-morbidity
Non-emergent ER care, PMPM	72.1%
Re-admissions within 30 days, PMPM	288.8%
Inpatient PMPM	88.3%
Total PMPM	38.8%

METHODS

A retrospective analysis of all CY 2009 medical, behavioral and pharmacy claims was performed on continuously-enrolled adult HMSA Quest members[1] (n=51,395) that also included a sub-analysis of only adult HMSA Quest members with one of seven SMI diagnoses (n=4,020). Additional analysis was done on members in the SMI subgroup to identify those with at least one medical co-morbidity (n=2,067) vs. those without medical co-morbidity (n=1,953).

Relative risk adjustment[2] using the Chronic Disease Payment Adjustment System (CDPS)[3] was applied to equalize disease burden between the two SMI subgroups in order to compare cost and utilization. Emergency room visits for non-emergent conditions (e.g., upper respiratory infections), re-admissions within 30 days, and polypharmacy—duplicative or multiple prescriptions—were used as markers for fragmented, uncoordinated care.

CONCLUSIONS

Our analysis of the adult HMSA Quest SMI population demonstrates significantly increased rates of fragmentation and lack of care coordination among the SMI population with medical co-morbidity compared to the SMI-only population, even after adjusting for disease burden variance. Re-admissions within 30 days for those with SMI and medical co-morbidity were almost twice as high as the SMI-only population. Re-admission costs (PMPM) for the former were almost three times as great as for the SMI-only population. Additional analysis[4] suggests that a savings of up to $66.39 PMPM could be realized if services were better coordinated for members with SMI and medical co-morbidity.

Our findings prompted HMSA to modify their ACT program to increase focus on SMI members with medical co-morbidities by encouraging ongoing and effective utilization of health homes, closing gaps in clinical care and increasing communication between behavioral and medical health homes. Future examination of this complex population will include pre and post comparisons of the new ACT program, including medication adherence, gaps in clinical care and utilization patterns. Preliminary data indicates an increased ratio of outpatient spend compared to inpatient spend during the first six months of the modified program.