Background

- Maimonides Medical Center (MMC) designed and implemented a program to improve the care and lives of adults with serious mental illness (SMI) including schizophrenia, bipolar disorder, schizoaffective disorder, and severe depression in Brooklyn, New York.
- SMI patients:
  - Are more likely to suffer from medical co-morbidities, and more likely to smoke, have poor nutrition, and inadequate exercise.
  - Have a life expectancy up to 25 years less than the general population.
- Generate (in NYS as of 2010) average per capita Medicaid expenditures of over $22,000 per year, double that of the average NYS Medicaid enrollee.
- In addition to higher baseline morbidity, poor health outcomes and high costs are related to a lack of provider coordination and excessive use of inpatient and emergency services, service duplication, and poly-pharmacy.
- In an effort to transform the system of care for this high-need, safety net population, improve outcomes, lower costs, and prepare for value-based payment, MMC implemented a care coordination model across a network of community-based providers to address social determinants of health, engage individuals in their care, and reduce costs, preventable and inappropriate health care utilization.

The Model

- The CMMI innovation program enhanced the Health Home intervention by:
  - Including all payers (Medicaid, Medicare, and commercial care).
  - Emphasizing multidisciplinary collaboration that transcends care management alone.
  - Advancing more specific standards relative to care management and the use of HIE.

Guiding Principles

- Fully informed and integrated medical care, mental health care, and connection to social services is especially critical for the SMI population.
- Sustainable improvement in the health of the SMI population is dependent on a care delivery system centered on the individual and his/her personal goals.
- Funding and workforce resources must be optimally deployed to care for the SMI population, enhance cost-efficiency, and drive measurable quality improvement.
- Integration of Health Information Technology (HT) and Health Information Exchange (HIE) into clinical care delivery will be among the most significant breakthroughs in improving the treatment and management of care for the SMI population.

Overview

- 6,277 individuals
- 4,120 variable participants
- 3,210 coordinated Behavioral Care Interventions
- 24% of SMI patients (Medicaid and private insurance)
- SMI
- Adults (over 18) being publicly managed care in Brooklyn, NY

Program Components

- Developing integrator provider network
- Partner with payer
- Anecdotal interdisciplinary care teams
- Generate predictive care management based on risk
- Develop a care coordination platform
- Improve patient’s health
- Improve quality of life
- Improve quality of care
- Decrease inappropriate hospitalization and cost
- Develop a sustainability model driven focused on the total cost of care

Program Goals

- Patient Population
- Program Components
- Program Goals

Utilization & Cost Outcomes

- NYS Medicaid claim and encounter data for patients enrolled in the intervention for 2009-2015 includes utilization claims history for 4,789 BHI months (249 patient-months) and 2,318 CBC (343,643 patient-months).
- TCCS models were estimated using panel fixed effects generalized estimating equations modeling gamma distribution and log link. Utilization count models for the five utilization variables were estimated using poisson panel fixed effects models with robust standard errors.
- Each model incorporated person-level fixed effects and the following independent variables: observation occurring following program enrollment date (teu/tm), dummy variables for season, year, for a count variable for observed 30 days intervals, centered at zero for the 30 day interval, centered at zero for the observation occurring following program enrollment date (teu/tm), and an interaction of program enrollment and the time interval variable.

Findings

- Internal Evaluation: MMC’s evaluation suggests a reduction in TCCD, IC and ED utilization per person-month of enrollment. Over three years, the model projects a net 42.5% reduction in ED visits, 29.7% reduction in inpatient admissions, a 9% net reduction in cost of care over three years for the population. Based on an approximated base total cost of care of $52,000 per member month, the model projects a potential savings of $50 million for the projected 17,000 Medicaid beneficiaries with continuous participation over a three year program period.

- External Evaluation: Mathematica Policy Research also performed an independent evaluation of the program. Using a different methodology, this evaluation found results consistent with MMC’s analysis. Mathematica concluded that the intervention saved Medicaid an average of $544 per member month, for a total savings of $48 million over three years.

Conclusions

MMC’s program demonstrates the benefit of care coordination in connection with both well-being and cost for a highly vulnerable population. Implementing this model among SMI addresses one of the most urgent care and cost problems that must be overcome for health reform to succeed. Dissiminating the intervention’s features and impacts is a key part of supporting both providers and government agencies as they pursue or expand transformation efforts.

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Transforming the Delivery System for a Seriously Mentally Ill Population: Innovations in Care Network Coordination, Network Building, and Health Information Technology

Magdalena Gordon, LMSW, Sara Kaplan Levenson, MPH, MSW
Department of Population Health, Maimonides Medical Center