Enhanced Patient Services: A Novel Evidence-Based, Community-Based Program to Coordinate Care and Reduce Hospitalizations

Michele Mercer RN; Kenyani Davis MD MPH; Kimberly Backey MBA; Janet Stoeckl RN

Millennium Collaborative Care

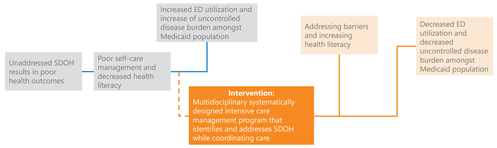
Millennium COLLABORATIVE CARE

Igniting Healthcare Change in WNY

Introduction

With a growing number of patients with complex medical conditions and a need for primary care services, there has been a strain on our existing primary care infrastructure. This has led to increased avoidable hospitalizations and emergency department (ED) visits among patients with chronic illnesses. This shift of medical treatment has resulted in increased cost of care and poor follow-up care. Several studies have researched various ways to accomplish effective care coordination programs that support practitioners and patients across the continuum of healthcare.

The Coleman Model for Care Transitions Pilot project was successful at using health coaches to teach self-care management, which led to a reduction in hospital readmission rates (Capp et al., 2017). Another project, Bridges to Care, was an ED-initiated, multidisciplinary, community-based program that was designed to shift patient care from hospital ED use by the Medicaid population to primary care. The six-month study resulted in a 27.9% reduction in ED visits and a significant increase in primary care usage: 114% when compared to the control (Coleman, 2019).



To meet the needs of Millennium's clinical partners for a Medicaid care coordination program for Millennium-attributed Medicaid recipients, we created a multidisciplinary team (Enhanced Patient Services) modeled after the aforementioned programs. We chose to focus on conditions that could be easily diagnosed, managed, and treated within a primary care setting: hypertension, diabetes, chronic obstructive pulmonary disease (COPD), asthma, and depression.

Patients with these conditions were enrolled into an intensive care coordination program delivered by a multidisciplinary team that included a registered nurse (RN) health coach, pharmacist, social worker, and community health worker. The team works with patients in their environment, and jointly with our primary care partners to effectively coordinate care, address social determinants of health (SDOH), and teach self-efficacy to patients.

Program Design

The program was designed to support those with chronic diseases, identify and address the SDOH, promote self-efficacy, improve health literacy, and offer medication support. This intensive four-month program was tailored to the needs of the individual while providing support for our partners within the community.

Inclusion Criteria

18 years old or older with "active" Medicaid

+

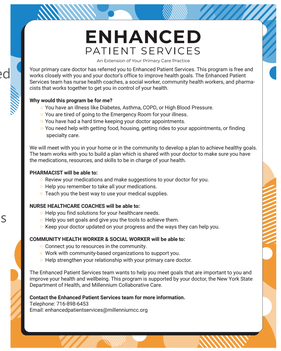
Two or more ED visits or inpatient hospital admissions within 12 months
OR
No primary care visit within 12 months

+

One or more of the following chronic conditions: hypertension, diabetes, COPD, asthma, depression

Multidisciplinary Team Design

- ***RN health coach***: Established clinical care management coordination; provided self-management support coordination; ensured participants were scheduled for services; followed up with participants to ensure services were received
- ***Pharmacist***: Established medication reconciliation and adherence programs, including medication information, education, and related self-management support; provided medication consultations
- ***Community health worker***: Focused on SDOH; assessed participant's social needs; referred patient to appropriate social service organizations; identified and addressed barriers to self-management



ENHANCED
PATIENT SERVICES
An Extension of Your Primary Care Practice

Your primary care doctor has referred you to Enhanced Patient Services. This program is free and works closely with you and your doctor's office to improve health goals. The Enhanced Patient Services team has nurse health coaches, a social worker, community health workers, and pharmacists that works together to get you in control of your health.

Why would this program be for me?
- You have an illness like Diabetes, Asthma, COPD, or High Blood Pressure.
- You are tired of going to the Emergency Room for your illness.
- You have had a hard time keeping your doctor appointments.
- You need help with getting food, housing, getting rides to your appointments, or finding specialty care.

We will meet with you in your home or in the community to develop a plan to achieve healthy goals. The team works with you to build a plan which is shared with your doctor to make sure you have the medications, resources, and skills to be in charge of your health.

PHARMACIST will be able to:
- Review your medications and make suggestions to your doctor for you.
- Help you remember to take all your medications.
- Teach you the best way to use your medical supplies.

NURSE HEALTHCARE COACHES will be able to:
- Help you find solutions for your healthcare needs.
- Help you set goals and give you the tools to achieve them.
- Keep your doctor updated on your progress and the ways they can help you.

COMMUNITY HEALTH WORKER & SOCIAL WORKER will be able to:
- Connect you to resources in the community.
- Work with community-based organizations to support you.
- Help strengthen your relationship with your primary care doctor.

The Enhanced Patient Services team wants to help you meet goals that are important to you and improve your health and wellbeing. This program is supported by your doctor, the New York State Department of Health, and Millennium Collaborative Care.

Contact the Enhanced Patient Services team for more information.
Telephone: 716-898-6453
Email: enhancedpatientservices@millenniumnc.org

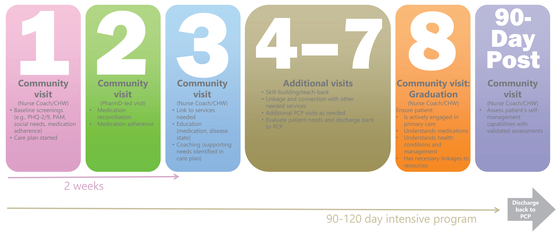
This multidisciplinary team works together with the patient over the course of 120 days. Evidence-based screening tools and assessments are completed to track patients over time and individualize care plans.

Program Plan

Patients were identified from a data analytic report based on the inclusion criteria. Patients were also selected by our primary care offices, through direct referrals, and from our clinical pharmacists. Patients were vetted with the practices to determine whether they would be a good fit for the program. Once a patient was identified as a suitable candidate, a phone call was initiated to invite them to participate in the program. Upon acceptance of the program, patients were considered "actively enrolled" and the process of data gathering and patient encounters ensued.

The program consisted of several in-home visits with the patient spanning over 120 days. The first two visits entailed evidence-based screening tools to quickly identify various SDOH, determine barriers to care, and evaluate health literacy. Once the information was obtained, an individualized plan was created for the patient and delivered through a coordinated approach from our multidisciplinary team.

Pre/post screening tools and surveys were completed before and after the program to assess for improvement in symptom management of different disease states and health literacy. A 90-day follow up survey of disease-specific screening tools was given to patients after completion of the program to determine sustainability.



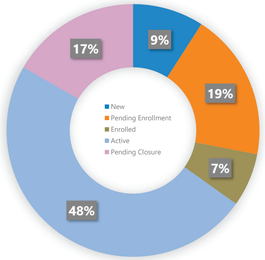
Results

The pilot project is currently ongoing. We have seven clinic sites as referral sources, with an additional five practices waiting to be onboarded in Buffalo, NY. A total of 181 participants were enrolled in the program, out of the 438 identified as meeting our inclusion criteria.

Status of Current Patients (as of October 7, 2019)	Patients
New	12
Pending enrollment	25
Enrolled	9
Active	64
Pending closure	22
Total	**132**

The top four reasons eligible patients were not enrolled or engaged in the program were:

- Unable to reach
- Declined: Not or no longer interested
- Achieved outcomes/max benefit reached
- Loss or change in benefits/eligibility



A total of 20 participants have graduated from the program. Among the 20 graduated patients, the most commonly cited SDOH was transportation, followed by health literacy, then food and housing insecurities. The average age of participants was 51 years old.

Of the 20 participants who graduated, the total number of avoidable admissions and ED visits prior to the program was 26. After the program, there appears to be a 50% reduction in avoidable admissions and ED visits.

Hospital Utilization Among Participants	PPVs	PPAs	Total
Six months prior to program	19	7	26
During program	15	4	19
Utilization three months after program completion	10	3	13

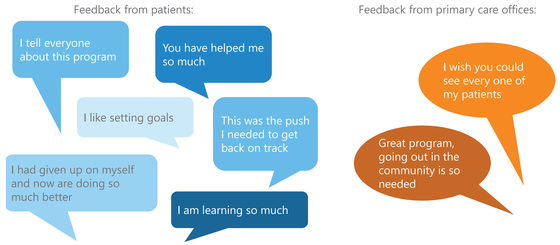
The table below tracks changes in results of the various screening tools conducted before, during, and after the program.

	Before Program	At Graduation	90 Days After Graduation
PHQ2/9*	8.21	7.58	6.55
PAM Raw Score	58.64	68.2	57.2
PAM Level	2.55	3	3.3
MMAS*	4.3	2.83	2.8
PROMIS Mental	11.68	11.44	10.7
PROMIS Physical	10.26	12.16	10.4
Perceived Stress*	18.84	15.93	18.62
ACT	12	20	15
CAT*	27	24	25

** A lower score is better*

Discussion

There was significant improvement in hospital utilization while patients were enrolled in the program. Even after the conclusion of the program, there was still a downward trend in hospital utilization amongst program participants 90 days following program completion. There was overall satisfaction with the program from the patients' perspective. Health liaisons within our primary care practices also found the program impactful and beneficial to their patients.



Conclusion

We feel that the success of the program was due to care coordination by a highly trained multidisciplinary team approach. Using a multifaceted approach to care coordination, we were able to address a wide range of determinants such as medication adherence, health literacy, disease state education, housing, and transportation. By meeting patients in their own environment, we were able to be the eyes and ears of our partners within the community. One of the key differences between most other care coordination or in-home health organizations was the fact that all our meetings were face-to-face.

We also had clinical pharmacists involved at the start of the program to work directly with the patient for medication adherence and education. Additionally, the pharmacists provided medication reconciliation and offered suggestions to the primary care practice when indicated for medication optimization and evidence-based medication treatment plans for each individual patient. This information was valuable to the treating provider due to the fact that the team had a 360° view of the patient, which is often impossible in a busy primary care practice.

The coordinated effort of the team working together to take care of the total patient in conjunction with the primary care office served as the foundation of the success of the program.

References

1. Capp, R., Misky, G., Lindrooth, R., Honigman, B., Logan, H., Hardy, R., Nguyen, D. and Wiler, J. (2017). Coordination Program Reduced Acute Care Use and Increased Primary Care Visits Among Frequent Emergency Care Users. *Health Affairs*, 36(10).
2. Coleman, E. (2019). *The Care Transitions Program: Transitional Care and Intervention.* [online] The Care Transitions Program. Available at: https://caretransitions.org [Accessed 7 Nov. 2019].

Contact Information: Kenyania@buffalo.edu

Financial support: This project was supported by Millennium Collaborative Care from the Delivery System Reform Incentive Program (DSRIP) grant from the New York State Department of Health.