



Maimonides Central Services Organization / Department of Population Health

Social Service Reinvestment Methodology

Based on Results of Project “Achieving the Greatest Impact on Health and Cost Outcomes: A Focus on Reinvesting in Social Services”

Maimonides Central Services Organization, with support from New York State Health Foundation (NYSHealth)

September, 2017

Table of Contents

Introduction	2
Literature Review and Primary Data Analysis Findings.....	2
Pilot Program	3
Social Service Reinvestment Strategy	4
Communications Plan	5
Supporting the Transition to VBP	6
Network Capacity and Development	6
Conclusion.....	7
Appendix	8

Introduction

Maimonides Medical Center, with support from the New York State Health Foundation (NYSHHealth), has studied the impact of social services on healthcare utilization and cost with the goal of identifying opportunities to invest in the social service infrastructure in Brooklyn to address social determinants of health. After conducting research about the impact of social service receipt and developing and implementing a pilot program based on these findings, we have synthesized the challenges and lessons learned throughout the process and developed a strategic plan for leveraging our findings through our ongoing work with a network of health and social services organizations across Brooklyn.

The Maimonides Performing Provider System (PPS), known as Community Care of Brooklyn (CCB), is engaged in healthcare delivery transformation in Brooklyn through the New York State Delivery System Reform Incentive Payment (DSRIP) program. CCB is focused on projects aimed at broad integrated delivery system improvement, as well as on a number of targeted projects including primary care and behavioral health integration, cardiovascular disease management, asthma home-based self-management, and palliative care. There are 650,000 patients attributed to our PPS network. To date, we have engaged over 100,000 patients across our broad network of hospitals, FQHCs, small practices, and other community-based providers.

Integral to the achievement of healthcare delivery transformation is an attention to the role of social determinants in supporting overall health and a focus on investing in key social services. This investment in social services and partnership with the community based organizations (CBOs) that provide them is an important goal of DSRIP. Understanding this critical importance of investing in social services to address social determinants of health, we conducted research to identify and generate evidence about social services' impact on healthcare utilization and cost outcomes, and are now implementing a pilot program based on our findings. These research and program implementation activities are discussed below.

Literature Review and Primary Data Analysis Findings

To begin our research on the impact of social services on healthcare utilization and cost outcomes, we conducted a preliminary exploration of published literature and Brooklyn Health Home (BHH)¹ care management data, and consulted partner care management agencies involved in both the BHH and the DSRIP program about their experience with connecting patients with social services. From these efforts, we identified six domains of social services on which to focus for our primary data analysis: housing, food assistance, income assistance, legal services, peer support, and vocational training.

¹ The Maimonides Central Services Organization / Department of Population health manages the DSRIP program for MMC and also provides management services to BHH, pursuant to a Management Services Agreement between Maimonides Medical Center and Brooklyn Health Home.

Findings from the literature review and primary data analysis indicated some evidence of the impact of social services on reducing healthcare utilization and costs. Although evidence in published literature for the impact of social services on healthcare utilization and costs remains in its beginning stages, and certain types of social service interventions have been studied more extensively than others, we reviewed published studies demonstrating effectiveness of interventions in the six social service domains of focus. We also reviewed literature that demonstrated evidence for the effectiveness of care management and care coordination, and literature that connected higher population-level spending on social services with improved health outcomes and lower healthcare costs (see Literature Review for additional details.)

Following our review of the literature, we conducted a primary data analysis on a sample of patients engaged in at least nine months of consistent care management through the Brooklyn Health Home program during 2014. Patients who received social services during the study period were identified through a qualitative review of care management notes. Using Medicaid claims data, we compared patients' emergency room (ER) and inpatient utilization and costs one year after their social service intervention period (defined as 2014) with one year before the intervention period. Similar to previous published findings, our findings indicated that housing, food assistance, income assistance, legal services, and vocational training interventions may be associated with reduced healthcare utilization and costs among this study population. Overall, the patients in the study experienced statistically significant reductions in number of ER visits, number of inpatient admissions, and ER-related Medicaid costs. (See Primary Data Analysis Report for further details on analysis methodology and results.)²

Despite small sample sizes that limit the statistical significance of the analysis and restrict the extent to which we can extrapolate our findings to a larger population, our findings provide useful preliminary information about social service receipt and its impact on healthcare utilization and cost outcomes for a population of high-need patients engaged in care management in Brooklyn.

Pilot Program

Based on research findings and an assessment of the availability of needed social services across Brooklyn, we have expanded an existing legal assistance clinic model to serve patients engaged with our partners in the CCB network. The legal clinic provides patients with legal assistance services to address a variety of social determinants of health, including housing, food assistance, and income assistance issues.

We are leveraging a training series, *Social Determinants and the Law*, currently provided by our network partners, the New York Legal Assistance Group (NYLAG) and 1199SEIU Training and Employment Funds, which trains care managers and other providers to better recognize social needs among their patient populations that could benefit from legal aid intervention and to make appropriate referrals. Referrals to the legal clinic can be made by care managers or other providers who have completed this free, day-long training.

² These conclusions are not those of the New York State Department of Health.

We have developed an evaluation plan to assess the operations and outcomes of the clinic during a year-long pilot period. The Medicaid ID numbers of patients referred to the program will be securely collected in order to track health outcomes pre- and post- pilot program participation. Additional information, including reason for seeking legal assistance, will further guide evaluation of program impact. We will continue to inform implementation of the legal clinic pilot program based on research findings, and to refine and potentially expand this and/or other programs based on lessons learned.

Social Service Reinvestment Strategy

To integrate the findings of our research and pilot program development into broader healthcare reform strategy, we will use the results to develop and inform plans for social service program development and funds flow in the DSRIP program. In addition to informing DSRIP strategy with our research findings and lessons learned, we are also disseminating and leveraging our findings across other population health programs as we develop and invest in a sustainable social service and healthcare delivery system in Brooklyn.

Some examples of research findings we intend to leverage in investment planning include:

- (1) Tailoring housing interventions to reflect the variance in housing need identified from the primary data analysis

From the care management progress note review, we abstracted not only indication of housing need but also categorical data about the level of severity of housing need indicated from the notes. The level of severity of each instance of housing need was categorized as one of the following: “street homeless,” “living in shelter,” “unstable housing,” “inadequate housing,” “environmental health concerns,” or “not specified” (See Appendix for definitions of level of severity of housing need used in the analysis). Our review indicated that many patients with housing need had some form of housing or shelter, although they were at risk of losing it, or were otherwise facing an inadequate living situation. In identifying more specifics about the housing needs among our patient populations, our findings may inform the development of feasible housing-related interventions. For example, the legal assistance program we have piloted has already begun addressing eviction issues experienced by referred patients. Additionally, the organizations in our network that conduct home visits to address environmental factors that impact health may also be further leveraged for addressing environmental health-related housing issues. We plan to continue assessing capacity in our network to appropriately intervene on housing issues among our patient populations.

- (2) Assessing specific needs for legal assistance services for legal service expansion across our network

Our care management progress note review identified a variety of issues for which patients needed and received legal intervention, including housing and eviction issues (see above), issues related to entitlement programs including food assistance and income assistance programs, and immigration

issues, among others (see Primary Data Analysis Report for a list of categories of legal issues identified). We will continue to analyze data from our legal assistance pilot program about specific needs for legal services among our patient populations, which will inform continued expansion of this type of intervention across our network.

- (3) Assessing gaps in social service delivery in the CCB network that could be met through further development of and investment in our existing partners and identification of new partners, including CBOs

The CCB network includes a number of CBOs and other organizations focused on the provision of a broad array of social services. Some of these partners may have the capacity to and interest in expanding social service delivery to better meet the needs of the communities they serve. By assessing these gaps and leveraging research findings about impactful social services, we can continue working with our partner CBOs and other providers of social services to develop capacity to provide additional services. Based on our research findings, we will work with these organizations to enhance data collection and tracking infrastructure in order to continue to evaluate the value and impact on health of the services that they provide as we move forward with the development of VBP contracts. We will also incorporate additional partners, including CBOs, to meet unmet needs.

- (4) Improving data collection and infrastructure to support future evaluations

Learning from the limitations of our data analysis regarding the challenges in obtaining social service need and receipt data will allow us to inform improvements in data collection, tracking, and sharing infrastructure across the CCB network, with a particular focus on providers of care management services and CBOs. One example of this is our ability to identify the receipt of social services. Social services receipt data was abstracted through a qualitative review of care management progress notes, which are free text, as opposed to containing structured data fields, and often difficult to code. Based on these challenges, we aim to implement improvements in data infrastructure including introducing additional structured data fields for collecting social determinant of health related need and receipt/resolution information, and reassessing care manager workflow to allow for enhanced social determinant of health related data collection and tracking over time.

Looking forward, we plan to continue to leverage DSRIP projects and funding to further pilot and test social service interventions' effects on health and cost related outcomes of interest.

Communications Plan

We are communicating with our PPS partners about our research findings and pilot program implementation through our PPS newsletter. We also plan to communicate with Health Home leadership around how to implement our findings into the operations of the Health Homes in our network, particularly around documentation procedures. This may involve developing a further communications plan with care management agencies regarding any updates to care manager

documentation processes. We are also working to identify additional forums for sharing findings and discussing the integration of social services into value based payment strategies.

Supporting the Transition to VBP

Our findings and reinvestment strategy are closely tied to value based payment (VBP) reform, with the aim of delivering care as efficiently and strategically as possible to maximize health outcomes and minimize costs. We intend to leverage our findings as we engage our partners in their transition to VBP arrangements. New York State's goal is to have 80% of managed care payments in VBP arrangements by the end of the DSRIP program. The creation of VBP arrangements has been a focus for the evolution of our PPS network during and post-DSRIP, and CCB's overall approach to the creation of a sustainable integrated delivery system is aligned with the tenets of the *New York State Roadmap for Medicaid Payment Reform* (also known as the VBP Roadmap).³

The VBP Roadmap specifies that, beginning in 2018, VBP agreements between provider networks and managed care organizations must include an agreement with a Tier 1 (non-Medicaid billing) CBO, and must include an intervention related to a social determinant of health along with metrics to track the success of the intervention. These requirements underscore the need for enhanced, expanded data infrastructure for community-based social service providers, such that the value of their services can be better measured and quantified over time. We intend to leverage and build upon these research findings to make recommendations to our network partners for inclusion of CBOs and interventions on social determinants of health in VBP arrangements.

As part of this value based payment reform, we have been paired with four Medicaid managed care organizations and four of CCB's safety net hospitals to implement the New York State Value Based Payment Quality Improvement Program (VBP QIP). This program assists hospitals in severe financial distress and enables these facilities to maintain operations and vital services while they work toward longer-term sustainability, improved quality, and alignment with the state's VBP initiatives⁴. VBP QIP requires that all participating hospitals establish Level 1 or greater VBP arrangements that cover at least 80% of its Medicaid managed care revenue by April 1, 2018. We are providing education and assistance to the hospitals in order to meet these VBP targets. As part of this effort, we intend to leverage research findings to facilitate connections between the VBP QIP hospitals and Tier 1 CBOs, as well as identifying and evaluating interventions to address social determinants of health.

Network Capacity and Development

Our reinvestment strategy also necessitates an assessment of our network partners and their capacity to provide the types of social services our research findings identified as potentially associated with reductions in healthcare utilization and cost outcomes. The gap analysis we conducted (see Network

³ New York State Department of Health Medicaid Redesign Team. (2016). A Path Toward Value Based Payment: Annual Update, June 2016, Year 2, New York State Roadmap for Medicaid Payment. Retrieved from https://www.health.ny.gov/health_care/medicaid/redesign/dsrp/2016/docs/2016-jun_annual_update.pdf

⁴ New York State Department of Health. (2017). Value Based Payment Quality Improvement Program (VBP QIP). Retrieved from https://www.health.ny.gov/health_care/medicaid/redesign/dsrp/vbp_initiatives/

Social Service Gap Analysis deliverable) will inform further efforts to assess the capacity of our existing network of social service providers, identify gaps in network capacity, and develop a strategy for bringing additional organizations and service providers into our network for comprehensively addressing social determinants of health.

Finally, as we focus on sustainability planning during and post-DSRIP, we are developing a successor entity for the PPS network. The main goal of the successor entity would be to support and sustain an integrated network of health and social service providers committed to improving the health of diverse communities across Brooklyn. It will become even more important to be able to identify the most critical services addressing the social determinants that affect the health of individuals and communities and effective providers for inclusion in the integrated network.

Conclusion

The findings and lessons generated from this project hold great relevance to the current efforts to transform into a clinically integrated network that delivers a high quality of care, improved health outcomes and financial sustainability. Our plan for leveraging findings across our network begins with expanding data collection and tracking infrastructure among our social service partners to continue piloting and testing social service interventions, and continues as we engage a wide range of our partners in value based contracting. The findings generated from our work funded by NYSHealth will guide long-term plans for social service reinvestment in Brooklyn.

Appendix

Levels of Severity of Housing Need Abstracted from Care Management Progress Notes

In addition to housing need, the level of severity of the housing need was abstracted from care management progress notes. The following categories and definitions were used to identify the level of severity of housing need indicator:

Street homeless: Housing need was categorized as “street homeless” if progress notes indicated evidence of shelter refusal, unwilling to go to a shelter, or complete homelessness.

Living in shelter: Housing need was categorized as “living in shelter” if progress notes indicated evidence of a patient residing at a shelter.

Unstable housing: Housing need was categorized as “unstable housing” if progress notes indicated evidence of a patient being housed, but at risk of losing housing imminently due to eviction or a personal situation.

Inadequate housing: Housing need was categorized as “inadequate housing” if progress notes indicated evidence of a patient being housed, but with some aspect of the housing situation being inadequate, such as apartment maintenance or conditions or a personal situation with the other tenants.

Environmental health concerns: Housing need was categorized as “environmental health concerns” if progress notes indicated evidence of a patient being housed, but the housing environment presenting health concerns, such as mold, mildew, insect infestation, or other conditions that negatively impact health.

Not specified: Housing need was categorized as “not specified” if progress notes indicated a need for housing without any additional details about the nature of the housing need.