

# Achieving the Greatest Impact on Health and Cost Outcomes: A Focus on Reinvesting in Social Services

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# Background

GRANTEE	MAIMONIDES MEDICAL CENTER
GRANT PERIOD	2013–2017
GRANT AMOUNT	\$290,950

Some of New York’s most vulnerable patients present both the highest needs and the highest costs to the health care system. Lack of coordination or communication among providers causes many of these patients to fall through the cracks. Recent efforts have sought to break down traditional silos and provide patients with a seamless spectrum of services that meet the entirety of their needs. For these efforts to succeed, payment systems must change to create the proper incentives for care integration and to discourage unnecessary and costly utilization such as hospitalizations or emergency room (ER) visits. In 2013, NYState awarded Maimonides Medical Center a grant to develop an all-encompassing total-cost-of-care reimbursement model to improve the delivery and financing of care for patients with serious mental illness. Under this grant, Maimonides planned to assess the costs and benefits of social services and to incorporate them into a comprehensive total cost of care model.

Shortly after the grant was awarded, New York State adopted [Health and Recovery Plans \(HARPs\)](#), which defined benefit packages for patients with serious mental illness and in many ways addressed the gaps that Maimonides’ project aimed to resolve. In 2014, Maimonides redesigned its project to focus on (1) identifying social services that have the most positive results on patients’ health care utilization and outcomes through claims data and (2) determining how savings achieved through reductions in medical expenditures can be reinvested in developing a scalable and sustainable social services infrastructure in Brooklyn.



# Grant Activities and Outcomes

## METHODS

To identify the social services with the greatest impact on health and cost, Maimonides studied a sample of 600 patients engaged in at least nine months of consistent care management through the Brooklyn Health Home program. Patients who received at least one of six social services during the study period were identified through a manual review and coding of free-text care management progress notes, and their ER and inpatient utilization and cost information was identified from claims data.

The six social services assessed were housing, food assistance, income support (cash assistance), legal services, peer support, and vocational training. These domains were established based on a review of published literature and a review of members' care management engagement notes.

A pre-post analysis assessed the impact of social services and care management interventions on health care utilization and cost outcomes. The health care utilization indicators used were:

1. Number of ER visits;
2. Number of inpatient admissions;
3. Number of patients with any ER utilization; and
4. Number of patients with any inpatient utilization.

Health care cost indicators used were:

1. Total cost to Medicaid of ER utilization; and
2. Total cost to Medicaid of inpatient utilization.

Statistical tests were applied to test for statistical significance in the changes in utilization and cost outcomes.

SOCIAL SERVICES
HOUSING
FOOD ASSISTANCE
INCOME SUPPORT (CASH ASSISTANCE)
LEGAL SERVICES
PEER SUPPORT
VOCATIONAL TRAINING



## Grant Activities and Outcomes (continued)

### RESULTS

Maimonides found that five of the six social services assessed—housing, food assistance, income assistance, legal services, and vocational training interventions—were associated with some reductions in health care utilization and costs. The patients in the study experienced a reduction in ER visits and a reduction in inpatient admissions, based on a comparison of health care utilization data prior to and following the intervention period. Additionally, overall, the patients in the study sample experienced a reduction in ER-related Medicaid costs, based on a comparison of cost data prior to and following the intervention period.

**Table 1.** Overview of Emergency Room and Inpatient Utilization and Cost Outcomes, Post-Intervention Period

INTERVENTION RECEIPT COHORTS	EMERGENCY ROOM			INPATIENT		
	Visits	Members w/ Utilization	Cost	Admissions	Members w/ Utilization	Cost
HOUSING (N=66)	△	△	△	△	△	△
FOOD ASSISTANCE (N=35)	▽	△	▽	△	△	▲
INCOME ASSISTANCE (N=27)	△	△	▽	△	△	△
LEGAL SERVICE (N=33)	△	△	▲	△	△	▲
PEER SUPPORT (N=10)	▽	▽	▽	▽	▽	▽
VOCATIONAL TRAINING (N=15)	△	△	▽	▽	△	▽
ANY INTERVENTION (N=153)	△	△	▼	▲	△	▲
ALL PATIENTS (N=599)	▲	△	▲	▲	△	▼

▲ Positive Impact—statistically significant

▼ Negative Impact—statistically significant

△ Positive Impact—not statistically significant

▽ Negative Impact—not statistically significant



## Grant Activities and Outcomes (continued)

For the cohort of patients who received each of the six social service interventions, the outcomes with statistical significance were:

- ER costs: There was a statistically significant **reduction in ER costs** among patients in the **legal services receipt** cohort.
- Inpatient costs: There were statistically significant **reductions in inpatient costs** among patients in the **food assistance** and **legal services receipt** cohorts.

For the cohort of patients who received any of the six social service interventions, the outcomes with statistical significance were:

- Inpatient utilization: There was a statistically significant **reduction in the number of inpatient admissions**.
- ER costs: There was a statistically significant **increase in ER costs**.
- Inpatient costs: There was a statistically significant **reduction in inpatient costs**.

For the full cohort of patients who were enrolled in the Health Home's care management program and demonstrated a need for at least one of the six social services included in the study, the changes in utilization and cost outcomes with statistical significance were:

- Number of ER visits: There was a statistically significant **reduction in number of ER visits**.
- Number of inpatient admissions: There was a statistically significant **reduction in the number of inpatient admissions**.
- ER costs: There was a statistically significant **reduction in ER costs**.
- Inpatient costs: There was a statistically significant **increase in inpatient costs**.

The limited sample size made statistically significant conclusions challenging. However, the pre- and post-intervention results suggest an association between social service interventions and reduced health care utilization and costs. The results suggest that continued engagement in care management services alone may be associated with a reduction in ER and inpatient utilization. See the [study brief](#) for more details and topics for further exploration in investigations of social services receipt on health care utilization and cost.



## Grant Activities and Outcomes (continued)

Maimonides created a [methodology for social service reinvestment](#) based on the study's findings. Because legal assistance was found to be an effective way to lower ER and inpatient cost, Maimonides's Community Care of Brooklyn PPS partnered with the New York Legal Assistance Group in the summer of 2017 to expand its existing legal assistance clinic model to provide patients with legal assistance services to address a variety of social determinants of health. The legal clinic is held at a partner social service provider site in downtown Brooklyn. Care managers and other providers in Maimonides's PPS network are eligible to make referrals to the legal clinic after completing a free, one-day training course about social determinants and the law, offered on a monthly basis. Maimonides will continue to leverage findings from this study to shape its PPS's investment priorities.



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