Grant Outcome Report

A Diabetes Management Initiative in the Central and South Bronx

KEY INFORMATION:

GRANTEE
Dr. Martin Luther King, Jr. Health Center, Inc.

GRANT TITLE
The Dr. Martin Luther King, Jr. Health Center Diabetes Management Initiative

DATES
January 1, 2008 – March 31, 2010

GRANT AMOUNT
$214,210

FUNDING
2007 Setting the Standard: Advancing Best Practices in Diabetes Management Request for Proposals

The Problem

Dr. Martin Luther King, Jr. Health Center (MLK) serves a predominantly vulnerable population of more than 668,300 people in the central and south Bronx within an approximately 13-square-mile area. Sections of the catchment area are federally designated as Medically Underserved Areas/ Populations and Health Professional Shortage Areas. These communities are among the poorest in the nation, characterized by high unemployment, non-English speaking households, and low education levels. Diabetes has reached epidemic proportions among these residents, with 11% to 17% of adults reporting having diabetes—a rate that is significantly higher than the overall New York City rate of 9% and the national goal of under 2.5%. Uncontrolled diabetes contributes to a number of health complications, including increased risk for heart disease and stroke, end-stage renal disease, blindness, and amputations. Annually, more than 40,000 hospitalizations are related to diabetes, costing the State Medicaid program more than $5.5 billion. A growing body of evidence supports chronic disease management and patient self-management practices, which are associated with improvements in health status. In January 2008, the New York State Health Foundation (NYSHealth) awarded MLK a grant to standardize diabetes care across its sites and reduce diabetes-related complications.

This project was funded under NYSHealth's 2007 *Setting the Standard: Advancing Best Practices in Diabetes Management* request for proposals (RFP). The goal of *Setting the Standard* was to move New York State's primary care system to adopt and spread best practices in disease management and establish them as the universal standard of care for patients with diabetes. At the time, multiple diabetes management programs already existed throughout New York State, along with established collaboratives to maximize the impact of these programs. Thus, NYSHealth expected the grants made under the RFP to advance these programs and build systemwide capacity to support, sustain, and institutionalize these efforts. The Chronic Care Model (CCM)—a highly respected and accepted framework for approaching the improvements sought through this initiative—was a major reference point in the RFP.

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Prior to receiving funding for this grant, members of MLK's leadership team had participated in regional quality improvement initiatives, including the New York City Department of Health and Mental Hygiene's (DOHMH) chronic disease collaboratives. MLK had also successfully integrated community health workers (CHWs) into geriatric care; since completing the NYSHealth grant, MLK has received funding from additional sources to expand use of CHWs to other patient subgroups.

Grant Activities and Outcomes

The MLK diabetes management initiative aimed to standardize diabetes care across ambulatory care clinics' internal and family medicine departments and reduce diabetes-related complications. MLK implemented a standard of diabetes care across its network, and created a diabetes patient registry that will be accessible at all sites and used to track patient-specific measures and program outcomes for reporting and performance improvement. A CHW program was piloted at one family medicine clinic to enhance diabetes education, peer support, and follow-up services for patients with diabetes.

The initiative initially targeted sites throughout the Bronx-Lebanon network, but was revised to focus on sites of the Bronx-Lebanon Hospital Center department of family medicine, and more intensively on the Fulton Family Medical Center (FFMC). Redesign of the care team was central to MLK's approach, with great progress made on this front during the grant period. To implement the initiative, the department of family medicine hired five CHWs and trained them to teach diabetes self-management. Family medicine staff participated in quarterly grand rounds on the CCCM and on CHW models. During the project, CHWs conducted 285 home visits, 329 clinic encounters, 900 telephone encounters, and 7 self-management monthly group workshops. The sessions were attended by a total of 59 patients with an average of 27 patients per session. More than half of the patients attended one or more session. Importantly, the CHW was a fully integrated care team member, participating in individual patient care planning and care team meetings. This high level of CHW integration is a distinguishing feature of the *Setting the Standard* initiative, and was essential in helping MLK meet its original goals.

The registry captured information for 222 patients registered at FFMC. Providers could use the registry to monitor patient status for clinical markers, medications, and primary care and selected specialty visits. Hospital and emergency department visits also were monitored outside

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the registry format. The original intention for data collection was to use a centralized version of the Chronic Disease Electronic Management System diabetes registry that had been instituted a number of years earlier by the internal medicine department. This department withdrew from the MLK diabetes initiative, which resulted in the grantee using an Excel spreadsheet for data collection. Unfortunately, the family medicine department had limited access to the data, and the Excel registry was used for study purposes only and not as a tool for monitoring patients. Going forward, MLK is implementing a primary care electronic health record (EHR) system and hopes to have increased access to population data on a real-time basis to support patient care.

As part of the *Setting the Standard* initiative, NYSHealth supported an outside evaluation of 10 of the 12 participating grantees. In addition to observing whether each grantee advanced against its proposed objectives, the evaluators also assessed how well each grantee adhered to the CCM principles. From the evaluators' perspective, MLK had a deep understanding of the model and how to implement the initiative using CHWs. MLK was able to fully integrate CHWs into the care teams. MLK's past involvement in quality improvement collaboratives gave its leadership a strong understanding for the need to give clinicians time for frequent and regular improvement team meetings, and the value of using small tests of change to realize improvement. The care team also understood the use of data to support improvements and having a registry to support patient care, though they experienced some hindrances in doing so during the grant period. It is also important to note the feasible scale of MLK's effort and its willingness to pilot new care team members and practices prior to expansion; this aspect of MLK's proposal enhanced its ability to achieve its expected outcomes.

MLK detected gradual but steady improvements in blood sugar and blood pressure levels and lipid control over time for patients with CHW support, both in absolute and relative terms, compared to patients in a matched control practice where CHW services were not available.

The Future

The central elements of this project—integrating CHWs into team-based care and creating a registry to support the CCM—will continue and expand within the family medicine department as a result of the widespread recognition of the value of this project. CHW services have already been expanded to include patients with diabetes at the Ogden Clinic, located in the same community as FFMC. In addition, the monthly sessions offered by CHWs have been increased to bi-weekly and are now open to clinic patients and their families, whether or not they have diabetes. Eventually, the CHWs will work with patients at the smaller sites as well.

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Developing a registry demonstrated that physicians need real-time data to identify, track, and intervene with patients who are having difficulty managing their diabetes. Bronx-Lebanon Hospital Center is in the midst of transitioning to a full EHR system, and elements of the registry will be incorporated. In the meantime, providers established clear lists of their patients with diabetes, and all patients with diabetes have been assigned to one primary physician. This created a system in which each patient has someone who is responsible for ensuring good results. In addition, in-chart flow sheets have been upgraded to be more comprehensive, and will be reviewed in a systematic way to ensure that attention is paid to every aspect important to the care of people with diabetes.

From the financial perspective, prospects for sustainability have been enhanced by the hospital administration's appreciation of quality improvement and have resulted in a commitment to provide funding for CHW positions. The department of family medicine has contributed to CHW funding from the outset by devoting a portion of its department practice fund to CHW salaries. Further, because of commitment to the model and an already existing practice, the department has received further grant funding from the Fan Fox and Leslie R. Samuels Foundation for a home-based primary care program for geriatric patients, and two grants from Health Resources and Service Administration—one for residency training and the other for meeting the increased demand for primary care services. Each of these grants included funding for CHW positions. Taken together, the department has now funded ten CHW positions, an increase from the three that were funded by this grant.

As noted, the change in physicians' perspective on the necessity of the model as a component of how medicine is practiced helped lead to program sustainability. A team-based approach to work, with CHWs playing a central role, is now firmly established in the Bronx-Lebanon Hospital Center department of family medicine.

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BACKGROUND INFORMATION:

ABOUT THE GRANTEE

Dr. Martin Luther King, Jr. Health Center (MLK) is a federally qualified community health center and the largest health center serving the south and central Bronx, and provides health care to 54,000 medically underserved people in the area. MLK holds a cooperative agreement with Bronx-Lebanon Hospital Center that provides medical and specialty support, and emergency and inpatient care; they also share an integrated EHR system and a centralized call center. MLK participates in the DOHMH's Preventive Services Advisor Program, aimed at improving diabetes medical management.

GRANTEE CONTACT

Doug Reich, M.D.
Chairman and Residency Program Director
Department of Family Medicine
1276 Fulton Avenue, 4th Floor
Bronx, NY 10456

Phone: (718) 901-8781
Fax: (718) 901-8704
E-mail: dreich@bronxleb.org
Website: http://www.bronx-leb.org/

NYSHEALTH CONTACT

Jacqueline Martinez Garcel

GRANT ID

1920995