United Neighborhood Health Services: Women Connecting in the Community

PROJECT OVERVIEW

United Neighborhood Health Services (UNHS) is a private, non-profit network of primary care clinics based in Nashville, Tennessee. As a Federally Qualified Health Center (FQHC), UNHS's mission is to improve the health of the Nashville metropolitan community by eliminating barriers to care and serving as a home for healthcare without regard for the ability to pay. UNHS began its Women Connecting in the Community program in an effort to help women manage their type 2 diabetes. They targeted African-American women between the ages of 25 and 65 living in the East Bank area of Nashville, an area of high poverty and need. The program sought to improve the diabetes care and health outcomes of its participants through a multi-level intervention emphasizing physical activity and engaging patients, providers, and family.

CONTEXT AND PARTNERS

The UNHS network includes ten clinics that serve approximately 31,000 patients annually. As a patient-centered medical home, UNHS offers diabetes care as part of routine practice in its primary care clinics. UNHS provides a diabetes case manager/health educator to assist patients in developing a self-management plan and assures access to retinal eye exams, dental services, and behavioral health counseling. For this project, United Neighborhood Health Services made it a priority to bring quality diabetes care to areas where it was most needed and supplement its routine diabetes care with additional supports for physical activity. The East Bank area of Nashville was chosen for this program because: 1) it is an area of extremely high need; and 2) UNHS had four clinics in the area that serve a large number of African-American women.

The East Bank area of Nashville is 12.79 square miles with a total population of 47,175 people. Over half (54 %) of the residents are African-American. One of the more impoverished areas in Nashville, this area is one of high need with 28.6% of families living below poverty and over 50% below twice the poverty level. Disparities in income, education, and transportation are significant. 39% of households have annual incomes less than $25,000, 20% of adults 25 years or older do not have a high school degree or equivalent, and 17% of households do not own a vehicle. The East Bank area is also considered a food desert because of poor access to major grocery stores, poor walkability, and a lack access to transportation for many households. 33% percent of area residents are obese and face challenges to engaging in the recommended dietary and physical activity guidelines due to financial, cultural, social, and environmental barriers.

In the East Bank, 44% of residences are renter occupied and 21% have female heads of households with children. The stress of living in poverty, the emotional burden of being caregivers, previous unsuccessful attempts to make lifestyle changes, depression, and a general sense of fatigue associated with having diabetes are major barriers related to diabetes care for the women in the East Bank of Nashville. To address these barriers, Women Connecting in the Community included several key components: patient-centered and culturally sensitive counseling for participants, family and peer support to set goals and engage in diabetes self-management behaviors (e.g., physical activity, balanced nutrition, etc.), individual assessment with clinical support from a diabetes case manager and clinicians, and individualized support for physical activity.

UNHS's implementation partners included Meharry-Vanderbilt Alliance and the Metro Nashville Department of Health. Partners were strategically chosen for assessment, planning, and intervention to assure that patients with diabetes received the care they needed. The Meharry-Vanderbilt Alliance brings together organizations to promote health and well-being of Nashville and to conduct research related to addressing health. The Metro Nashville Department of Health is a key source of preventive care for those living in the area.

ASSESSMENT AND PLANNING

The 2001-2005 REACH 2010 study of North Nashville, a large geographic area that subsumes the target area, documented the extremely poor health status for African-Americans in the area. African-Americans were less likely to consume 5 or more servings of fruits and vegetables (24.2%) as compared to Whites (36.4%). Obesity prevalence was found to be higher (33.7%) compared to all other areas of Nashville (23.9%), as was diabetes (10.9% and 8.9%). According to the 2009 Behavioral Risk Factor Surveillance System (BRFSS) survey, 15.9% of African American women in Nashville reported having been diagnosed with diabetes, and 14.7% reported having been diagnosed with borderline diabetes, as compared to 8.8% and 9% of White women.

Tennessee is 6th in the nation in diabetes prevalence (7.2%). African-American women are twice as likely to have diabetes as White women and are more than twice as likely to die of the disease. In 2008, age-adjusted mortality rates due to diabetes were 59.3 per 100,000 among African-Americans, compared to 19.7 among Whites (TN Department of Health). In Davidson County where Nashville is located, African-Americans were significantly more likely to be diagnosed with diabetes (18.6%), high blood pressure (53.9%), and high cholesterol (36.4%) than Whites (6.8%, 30.2%, and 28.3%).

These and other assessments were used for planning the Women Connecting in the Community program. The intervention delivery care model was the Patient Centered Medical Home (PCMH) model framework in addition to using community resources when available. The PCMH model is a framework for action that uses comprehensive care coordination to help assure that healthcare professionals communicate with and offer patients the right care.

The goals of Women Connecting in the Community included:

1. Build on existing efforts by UNHS and the community to control type 2 diabetes by adding a new intervention to improve all aspects of self-management behavior, with special emphasis on increasing physical activity.
2. Change delivery system design at the UNHS Main Street Clinic to support this intervention, in accordance with the Patient Centered Health Home and Chronic Care Models.
3. Improve diabetes-related clinical indicators among the participants (A1c, blood pressure, LDL cholesterol).
4. Strengthen participants' self-efficacy; their ability to improve their health and control their diabetes.
5. Promote family involvement and social networking.
6. Increase use of community resources, including community centers, parks, and walking sites.
7. Share knowledge gained in the hopes to contribute to the development and understanding of how to increase physical activity among African-American women living in poverty.

INTERVENTION

The overall goal of the UNHS Women Connecting in the Community program was to empower African-American women with type 2 diabetes in Nashville, TN to improve their health and diabetes self-management, with an emphasis on increasing physical activity. This project used a multi-disciplinary healthcare team to enhance the diabetes care provided at the four clinics involved. A diabetes nurse case manager oversaw program coordination and worked with participants on the development of self-management goals and ensured follow-ups to achieve the goals set; a fitness coordinator organized group fitness activities, facilitated patient-specific physical activity programs, and provided in-home physical activity consultations; primary care providers provided evidence-based diabetes clinical care; a behavioral health specialist provided consultation and helped to integrate behavioral health counseling into usual diabetes care at the clinics; and family members were engaged to provide social support.

Physical activity was included in as many aspects of care as possible. Physical activity counseling was incorporated in regular clinical visits and documented in the clinical record. The fitness coordinator was included in daily health care team huddles and physical activity prompts were added to the electronic medical record. The program also provided education for the clinical staff to better support patient participation in physical activities. Table 1 (below) summarizes key aspects of the program.

Table 1: Intervention components, related elements, and modes of delivery used in Women Connecting in the Community.

INTERVENTION COMPONENTS	SPECIFIC ELEMENTS (what was done)	MODE OF DELIVERY (by whom and how)
Diabetes Self-Management Education	• Development of self-management plans and adjustment of plans as needed • Provided nutrition classes/counseling • Distributed pedometers to monitor activity levels	• Case manager • Fitness instructor • Clinical care provider
Support for Managing Diabetes and Distress	• Initiated and coordinated physical activity at the clinic and within the community— for example, walking groups and group fitness activities • Provided home visits • Promoted joint participation of family members, particularly the patient's daughters • Implemented group visits to stimulate the development of support networks	• Family participation, group activities and social networking • Fitness instructor
Enhanced Access/Linkage to Care	• Provided outreach services to community resources • Offered exercise videos for home use • Provided physical activity education and instruction within patient homes • Provided physical activity classes, including group walking, aerobic exercise, resistance training, and dance (zumba) classes • Coordinated physical activity within the home including personalized yoga instruction, chair exercises, balancing ball, flexibility exercises, and walking	• Promote adherence by utilizing technology: telephone calls, text messaging, email, and web-based program • Fitness instructor • Stress management through behavioral health counselors

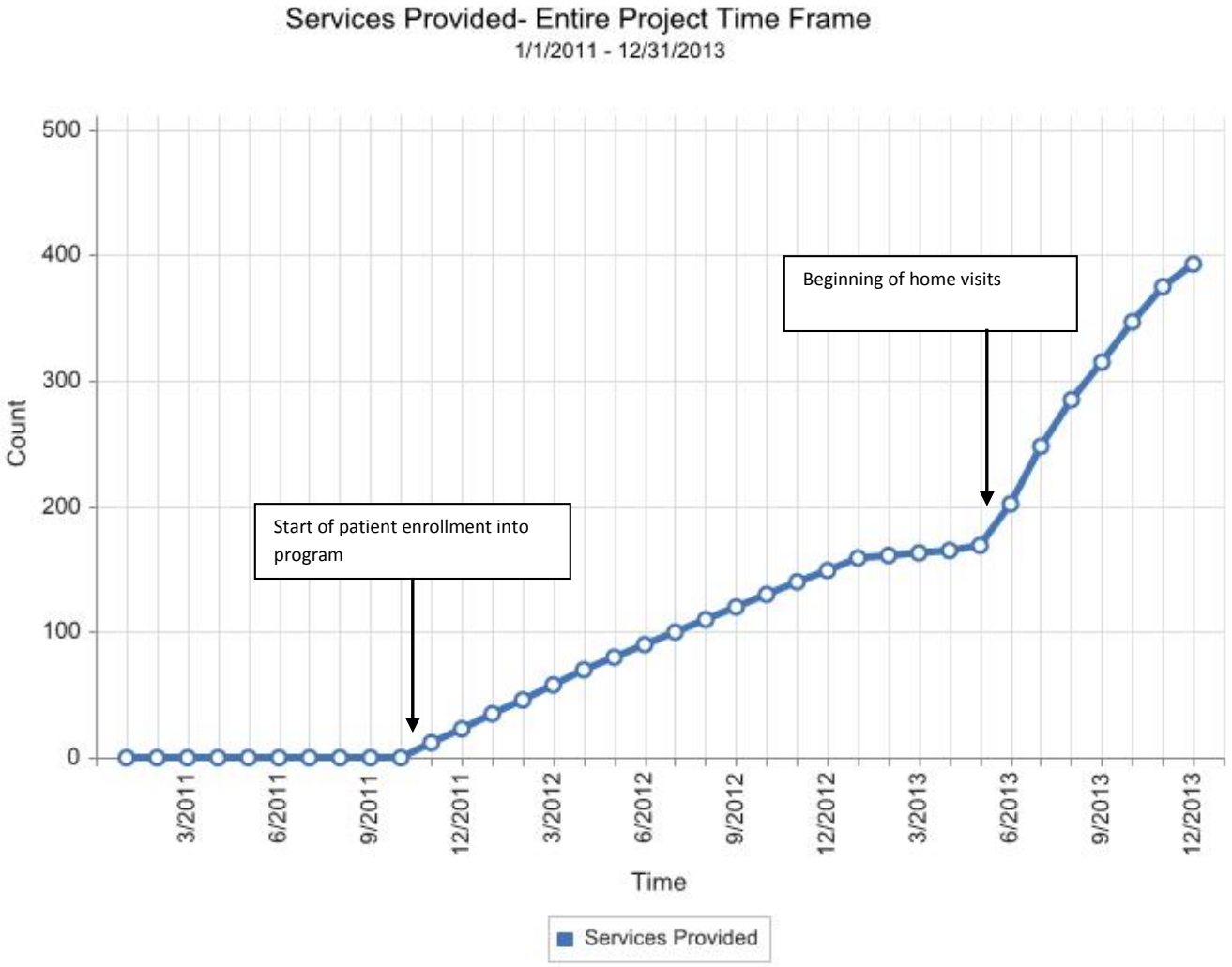
Improve Quality of Care	• Clinical practice changes such as new protocols to assure consistent quality of care • Integrated behavioral health counseling into usual diabetes care	• Clinical care provider • Behavioral health specialist
Community Organization, Mobilization, and Advocacy	• Provided interventions with a spiritual dimension to manage stress including yoga and meditation • Linked patients to community resources	• Case manager • Fitness instructor
Health System and Community Transformation	• Partnered with United Way to make prevention and management of diabetes a community-wide initiative	• Case manager • Fitness instructor

EVALUATION RESULTS AND FINDINGS

United Neighborhood Health Services documented and characterized activities (e.g., services provided) related to implementation of Women Connecting in the Community. Data were also collected on key measures of clinical outcome (i.e., A1c levels) for program participants.

Data on Implementation of the Program:

Figure 1 displays the cumulative number of services provided by the Women Connecting in the Community Program. Services provided included program outreach, educational sessions related to physical activity, nutrition, and family support using the PCMH model.



The results show a steady delivery of services following the onset of the program (October 2011). [Note: In a cumulative graph, each new activity is added to all prior activities. The steeper the line, the higher the rate of services delivered.] Following a slower period (January through May, 2013), there was a marked increase in services provided. This change was associated with the onset of home visits by a fitness instructor, a new approach implemented to overcome barriers to participation. 208 women participated in the program and 41 of those participants received in-home physical activity consultation and support.

Data on Clinical Outcomes:

A key outcome of the project was to improve A1c levels among participants. Table 2 summarizes patient clinical outcomes obtained during the BMSF funded initiative (October 2011 to December 2013) among 195 participants for whom pre and post measures were available. A clinically and statistically significant improvement in A1c was experienced by high risk patients (A1c > 9%) over time. Average A1c for all participants and blood pressure improved slightly, but the change was not statistically significant. Among those receiving physical activity sessions within the home and for whom pre and post data were available (N = 27), the association between the number of home visits and improvement in A1c was not statistically significant, r = −.340 (p = .089).

Table 2. Pre- and post-assessment of clinical outcomes of patients enrolled in the study			
CLINICAL OUTCOME	Pre-assessment mean *M* (SD) *N*	Post-assessment mean *M* (SD) *N*	*p* value
Average HbA1c	8.7 (2.2) 195	8.4 (2.2) 153	.133
Average HbA1c (> 9%) %	11.1 (1.5) 81	9.9 (2.2) 69	.028*
Average systolic blood pressure mmHg	139.2 (20.2) 195	138.3 (20.1) 173	.647
Average diastolic blood pressure mmHg	83.5 (10.6) 195	82.7 (10.4) 173	.682
Average LDL cholesterol mg/dL	107.3 (35.4) 146	111.4 (34.6) 98	.757

STORY OF COMMUNITY TRANSFORMATION: Shift to Within-Home Physical Activity

When Women Connecting in the Community was first launched, women were offered diabetes care at the UNHS primary care clinics and fitness activities were organized at the clinics and at community centers and neighborhood churches. However, there was low participation in program activities. A variety of strategies to increase participation did not work. So staff members used surveys and interviews with patients to assess barriers preventing women from participating. The findings identified lack of transportation as the major barrier for most African-American women living in the East Bank area.

To address this barrier, *UNHS brought patient-specific diabetes care and individualized physical activity plans to the women's homes*. A fitness instructor visited patients at home to work towards physical activity goals set at the beginning of the program. For any willing participant, the fitness instructor would meet with them in their homes weekly (sometimes multiple times per week) to provide individual, face-to-face physical activity education and instruction. Together they developed a physical activity plan that included activities that could be completed within the home such as yoga, chair exercises, balancing ball, flexibility exercises, and walking. This led to an increase in participation in the program because the women were able to access care in their own homes.

In addition to bringing physical activity interventions into the home, the UNHS team also advocated at a broader level for better transportation to care options for women living with type 2 diabetes. Since Medicaid supports transportation to medical visits, the UNHS program leadership saw an opportunity to advocate for Medicaid to expand their transportation services to include transporting women to physical activity programs and classes in the community. United Neighborhood Health Services has advocated with representatives from Medicaid to adopt this policy change in order to reduce transportation barriers to receiving both medical and preventive health care.

WHAT WE LEARNED

United Neighborhood Health Center staff helped to identify key restraining and facilitating factors.

Facilitating factors in delivering (and receiving) services that contributed to the program's success included:

- Meeting program participants where they are (i.e., within their homes and neighborhoods). Many women preferred the safe and comfortable setting of their own home to talk about barriers to physical activity and practice exercising. The fitness coordinator felt that the home-based visits gave the women a sense of self-worth and allowed her to gain an understanding of the participants' life context to offer concrete and specific suggestions for increasing daily movement.
- Engaging participants' family members in the home visits and other aspects of the intervention was useful for increasing social support.
- UNHS used a video library and pedometer distribution to all participants, including a data collection tracking tool, to increase participation.
- Building a multi-disciplinary health care team that can address the multi-faceted issues of diabetes management was helpful. The UNHS diabetes care team included: primary care providers, diabetes case manager/health educator, fitness coordinator, behavior health counselor, and other team members.
- Recognizing the barriers to lifestyle change as an essential component of the Patient Centered Medical Home was necessary to creating an effective intervention.
- Building bridges between the medical and non-medical resources in the community, UNHS was able to provide the appropriate intervention strategies to help treat, motivate, support, and encourage the participant's efforts to take the necessary steps toward managing their diabetes.

Challenges or restraining factors in delivering services included:

- Patients' lack of transportation (33% of participants reported this as a barrier) and patients' work (19 % of participants reported this as a barrier) diminished participation in clinical care and the program's organized fitness activities.
- Attitudes around diabetes and behavior change were challenging to change. For many of the patients, diabetes goes back several generations. Having parents and grandparents with diabetes made it easier for the women to accept their medical condition and feel less motivated to change it.
- Lack of understanding of basic diabetes health information and what constitutes exercise. Many women did not know the range of options available for physical activity.
- Women experienced complicated social and emotional barriers to putting themselves and their own health first and challenging life circumstances meant that diabetes self-care, including physical activity, was often not a priority.

MOVING FORWARD AND SUSTAINABILITY

United Neighborhood Health Services hopes to sustain the engagement of participants in physical activity through the skills taught by the program (e.g., yoga skills, aerobic exercise, resistance training, and zumba skills). Women were given suggestions for physical activity meant to encourage long-term, sustainable practice. Maintaining the key program components through engagement of family members and case management follow-up is also key to sustaining physical activity. UNHS has adapted the PCMH model institutionally—in collaboration with implementation sites. This model provides a more comprehensive approach to health care, which can have a significant impact on health outcomes for those living with diabetes. Another way UNHS plans to sustain their effort is through policy and advocacy. UNHS has focused on addressing the health needs of the underserved by partnering with United Way to make prevention and diabetes management a community-wide

initiative. UNHS will continue to share lessons learned and best practices with colleagues in the field through the local safety net consortium, which meets every other month. Table 3 below outlines plans for sustaining the Women Connecting in the Community Program.

Table 3: UNHS's Plan for Sustainability

TACTICS OF SUSTAINABILITY	SPECIFIC APPROACH
Apply for grants	• UNHS has been a partner with the Meharry Vanderbilt Alliance in applying for a grant, which would enable sustainability of the care management aspects of the program.
Solicit in-kind support	• Yoga mats, resistant exercise bands and healthy snacks were donated for group meetings • 180 donated pedometers were donated and distributed to program participants
Pursue third party funding	• United Health Care reimbursement for members to attend YCMA

PROJECT PUBLICATIONS AND MATERIALS

- List of project materials (e.g., curricula, printed materials, etc.)
    - BMS Questionnaire Survey to distinguish specific behavior patterns in an effort to develop patient centered intervention strategies
    - Fitness handouts developed specifically for individual patient based on physical mobility and environment
    - Video library

UNHS CONTACT INFORMATION

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EVALUATION CONTACT INFORMATION

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