BRIEFING PAPER FOR THE NATIONAL INSTITUES OF HEALTH (NIH)
National Center on Minority Health and Health Disparities

Topic: Interventions for a Focused Diabetes and Chronic Kidney Disease (CKD) Disparities Project

INTRODUCTION

The National Institutes of Health (NIH) and the CMS (OCSQ) entered into an Inter-Agency Agreement (IAA) in September 2008. The purpose of this agreement is to work toward improving the quality of care for Medicare beneficiaries through interventions focused on efforts to improve diabetes measures and to detect the incidence, decrease the progression, and improve care of those with Chronic Kidney Disease (CKD), in a targeted underserved (hereinafter referred to as "priority population") population. Priority populations are defined as African-American, Hispanic-Latino, Asian/Pacific Islander, American Indian/Alaska Native, and those persons residing in a rural geographic location. The NIH requested that CMS consider a State that was within the Mississippi Delta Region for this project, as well as, including rural and disadvantaged socioeconomic Medicare populations in its focused efforts. Based on NIH's request and information obtained regarding diabetes rates, Tennessee was chosen as the site for this project. The contract to provide the intervention ("Interventions for a Focused Diabetes and CKD Disparities Project") was awarded to Healthcare Management Solutions, LLC (HMS), a Small Business Administration (SBA) 8A (disadvantaged small business) certified Contractor, on September 30, 2008.

The CMS is pleased to have the opportunity to work with the NIH on such a worthy initiative. CMS believes that the synergy achieved through the NIH's National Center on Minority Health and Health Disparities insight into the traits of disparate populations and CMS's work with the QIOs on several prevention themes will result in increased health care equity among Medicare beneficiaries.

EXECUTIVE SUMMARY

The CMS and its Contractor (HMS) developed an approach to this project that recognizes managing chronic diseases requires, increasingly from the patient, an understanding of complex interactions that involve a network of health care professionals from a variety of disciplines. Many self-management support programs have been developed to assist chronically ill patients. These programs have been defined as "the systematic provision of education and supportive interventions by health care staff to increase patients' skills and confidence in managing their health problems, including regular assessment of progress and problems, goal setting, and problem-solving support." Because this project is designed to decrease the incidence of morbid diabetes outcomes; and decrease the progression to chronic kidney disease, the Contractor established goals that will be realized through improvement in the management of diabetes and chronic kidney disease among priority Medicare populations. The overall goals are to recruit 40 Participating Practices (PPs) and 1,500 beneficiaries for the purpose of implementing interventions to help prevent diabetes complications and to detect the incidence of CKD, decrease its progression, and improve CKD care among Medicare beneficiaries through provider adoption of timely and effective quality of care interventions; participation in quality incentive initiatives; beneficiary education; and key linkages and collaborations for system change at the local level. In addition, another project goal is to recruit and include beneficiaries residing in a rural area to receive the diabetes and CKD interventions.

The first quarter goals for the project were to recruit 16 PPs. The Contractor exceeded this goal. Additional information pertaining to the project's goals and milestones can be found in the "Appendices and Milestones" section of this paper.

Locations in Tennessee to Implement Interventions

As mentioned in the "Introduction", CMS endeavored to identify a suitable area in Tennessee that was within the Mississippi Delta Region and contained a Medicare priority population, as well as, rural and socioeconomic Medicare populations.

Therefore, the Contractor (in consultation with CMS) identified Madison County, Tennessee (located in West Tennessee) as its primary location for implementation of the diabetes and CKD interventions activities. The justification for this selection includes the following:

A. Age-adjusted diabetes mortality rates are highest in West Tennessee.
B. In Madison, county age-adjusted diabetes mortality rates for African Americans increased from 28.5 per 100,000, to 84.9 per 100,000, from 1990 to 2006.
C. Among whites in the same county, there was a small increase from 20 per 100,000 to 24 per 100,000.
D. The University of Tennessee Health Science Center reports that Medicare recipients with diabetes were more likely to receive an annual HbA1c test if living in East (81.6%) or Middle (78.7%) portions of the state than were those who lived in West Tennessee (70.9%).

In addition, in order to meet the goal of including Medicare beneficiaries residing in a rural area, the Contractor (in consultation with CMS) identified Covington, Tennessee (located in Tipton

County) as a rural practice site. Covington is located mostly in rural Tipton County, northwest of Madison County and almost equidistant from Jackson and Memphis. The table below compares Tipton and Madison counties. Tipton County has a similar mortality rate compared to Madison with only half the hospital discharge rate.

Variable	Tipton	Madison
# PCPs	31	174
Death Rate (per 100,000)	34.3	38.9
Hospital Discharge Rate (per 100,000)	103	222
% African American	19.9	32.5
% Rural	66.8	28.6
% Hispanic	1.2	1.7
% 65+ years	9.9	12.3
Total Population	56,699	96,205

Additional rationale for including Covington, TN in this project includes the following:
1. It is the seat of a mostly rural county and allows access to a large rural community, and
2. It would provide access to a telemedicine facility (University of TN Family Practice) that has been used for diabetes education, which will allow the Contractor to evaluate aspects of the intervention within a program designed to improve access to care for remote and rural populations.

Major Accomplishments

A. As of February 27, 2009, 28 or 70% of the Participating Practices (PPs) were recruited (Goal is 40 PPs).
B. As of February 27, 2009, 14 or 1% of the beneficiaries were recruited (The first quarter goal is 225 beneficiaries).
C. All three (3) Certified Diabetes Educators (CDEs) in Madison County were recruited.
D. The Contractor identified 89 other diabetes education and management efforts across the state of Tennessee.
E. Eleven (11) health provider facilitators (called “Community Champions”) were recruited who provided access to numerous primary care practices in Madison County and assisted in project integration.
F. Six (6) community facilitators were recruited to assist in defining the community resources that are available and to provide insight into how clinical practice can be effectively linked to public health interventions for the benefit of the patients.
G. The Contractor developed other collaborative partnerships with individuals and organizations in the health care and education communities including:

    1. National Medical Association
    2. Vanderbilt University – Depts. Of Internal Medicine, Nephrology, and Ophthalmology
    3. Tennessee Department of Health – the Division of Policy and Planning, TennCare, and the Division of Minority Health and Disparities Elimination
    4. Jackson – Madison County Department of Health
    5. Meharry Medical College

6. The Vanderbilt – Meharry Alliance
7. Tennessee Center for Nursing Research
8. The Tennessee Nurses Association
9. Southwest Area Agency on Aging
10. University of Tennessee at Memphis
11. Project Dulce
12. LeBonheur Community Outreach Program

Identified Challenges

1. Beneficiary Recruitment

The beneficiary recruitment process has taken longer than originally anticipated because of the time necessary to identify Medicare beneficiaries with a diagnosis of diabetes and/or CKD, especially for the PPs that do not have electronic health records (EHRs). PPs that do not use EHRs must review paper charts to identify beneficiaries that meet the project criteria. This task is time consuming and has slowed down the beneficiary recruitment. However, the Contractor has developed a process whereby one of their staff assists the physician practices with the identification process, so as to expedite recruitment. In addition, the Contractor has developed a process for contacting beneficiaries that includes telephone calls and home visits, if necessary, to inform potential participants about the project and to help the beneficiary find transportation to the education site, if necessary.

2. Sustainability of this initiative once the project has been completed

The Contractor believes that sustainability is of the utmost importance to this project. To ensure that the effects of the project remain, they plan to take the following actions:

A. Open their DSME training programs to members of the health professional community.

B. Work to assure that the American Diabetes Association recognizes this project's DSME program because Jackson-Madison County has no recognized ADA or AADE diabetes self-management education program. In addition, they will work with The Jackson Clinic and the Jackson-Madison County General Hospital to pursue program recognition by the ADA or the AADE.

C. Work with Community Based Organizations (CBOs) to identify certification processes for the CHWs.

D. Work with the Vanderbilt University Medical Center Eye Clinic and local ophthalmologists to bring systematic portable digital retinopathy screening to Jackson-Madison County.

E. Work with collaborating partners to identify how best to introduce a sustainable Diabetes Registry in Madison County. Barriers to creating a registry will continue after the end of the project; but we believe that the lack of diabetes registries represents a substantial gap in the public health care of persons with diabetes.

F. Develop a Community Resources Bank.

Contractor Goals for March and April, 2009

1. Complete staff hiring: Additional CDEs are being recruited for field work. These individuals will focus primarily on beneficiary recruitment and execution of the educational intervention.

2. Train additional Contractor staff in Project Dulce by March 31, 2009. (The Contractor is using a CMS-approved DSME training program, Project Dulce.) The training program will be given by Project Dulce staff in Jackson.

3. Implement the first beneficiary training session: The first group of beneficiaries is scheduled to begin training the week of March 2, 2009.

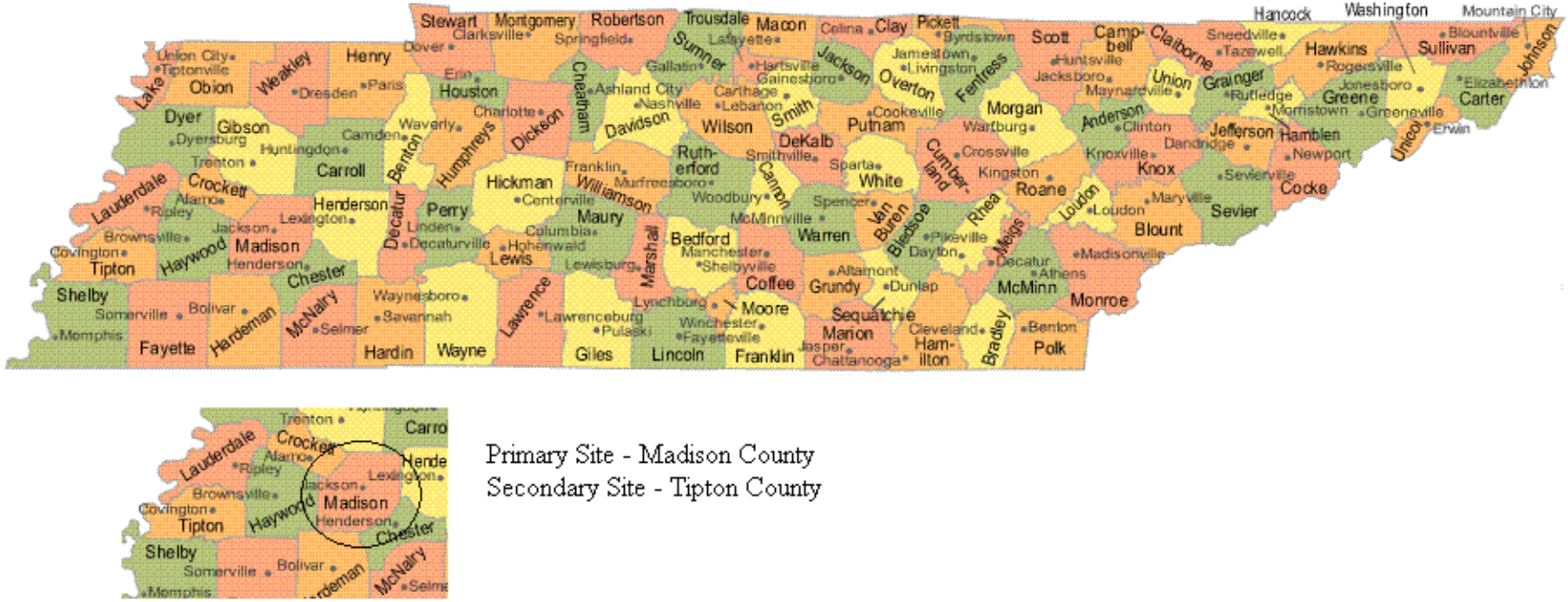
4. Complete recruitment of the Participating Practices (PPs): The Contractor projects to meet or exceed the target goal of 80% (32) of PPs recruited by March 31, 2009.

5. Continue beneficiary recruitment and training.

APPENDICIES AND MILESTONES

Participating Practice Recruitment Target Area

Madison County, West Tennessee



Primary Site - Madison County
Secondary Site - Tipton County

Disparities Reduction Evaluation

Participating Practices

Monitoring Period	**Target Minimum** PPs = 40 **(# Recruited)**	**Actual** PPs **(# Recruited)**	**Target Minimum** PPs = 40 **(% Recruited)**	**Actual** PPs **(% Recruited)**
Baseline	0	0	0%	0%
Quarter 1: 01/31/2009	16	28	40%	70%
Quarter 2: 03/31/2009	32		80%	
Quarter 3: 06/30/2009	32		80%	
Quarter 4: 09/30/2009	32		80%	
Quarter 5: 12/31/2009	32		80%	
Quarter 6: 03/31/2010	32		80%	

Diabetes Clinical Measures

Monitoring Period	**HbA1C (Target)**	**Eye Exam (Target)**	**Lipids (Target)**	**BP Control (Target)**
Baseline	N/A	N/A	N/A	N/A
Quarter 1: 01/31/2009	0%	0%	0%	0%
Quarter 2: 03/31/2009	0%	0%	0%	0%
Quarter 3: 06/30/2009	2%	1%	2%	1%
Quarter 4: 09/30/2009	5%	2%	5%	2%
Quarter 5: 12/31/2009	8%	3%	8%	3%
Quarter 6: 03/31/2010	10%	5%	10%	5%

Beneficiaries

Recruited

Monitoring Period	Target Number of beneficiaries to be recruited = 1500	Actual Number of beneficiaries recruited	Target Percentage of beneficiaries to be recruited = 1500	Actual Percentage of beneficiaries recruited
Baseline	0	0	0%	0%
Quarter 1: 01/31/2009	0	12	0%	1%
Quarter 2: 03/31/2009	225		15%	
Quarter 3: 06/30/2009	500		33%	
Quarter 4: 09/30/2009	900		60%	
Quarter 5: 12/31/2009	1,200		80%	
Quarter 6: 03/31/2010	1,200		80%	

Trained

Monitoring Period	Target Number of beneficiaries trained	Actual Number of beneficiaries trained	Target Percentage of beneficiaries trained	Actual Percentage of beneficiaries trained
Baseline	0	0	0%	0%
Quarter 1: 01/31/2009	0	0	0%	0%
Quarter 2: 03/31/2009	75		5%	
Quarter 3: 06/30/2009	150		10%	
Quarter 4: 09/30/2009	225		15%	
Quarter 5: 12/31/2009	300		20%	
Quarter 6: 03/31/2010	375		25%	

CKD

1. For all targeted practitioner/provider activities, in all areas, by the end of quarter 1, 40% of practitioners/providers recruited; by the end of quarter 2, 65% of practitioners/providers recruited; by the end of quarter 3, 80% of practitioners/providers recruited.

PP Recruitment

Monitoring Period	Target Minimum PPs = 40 **(# Recruited)**	Actual PPs **(# Recruited)**	Target Minimum PPs = 40 **(% Recruited)**	Actual PPs **(% Recruited)**
Baseline	0	0	0%	0%
Quarter 1: 01/31/2009	16	28	40%	70%
Quarter 2: 03/31/2009	26		65%	
Quarter 3: 06/30/2009	32		80%	
Quarter 4: 09/30/2009	32		80%	
Quarter 5: 12/31/2009	32		80%	
Quarter 6: 03/31/2010	32		80%	

CKD Clinical Measures

Monitoring Period	**Timely Testing – Microalbumin Target**	**Actual**	**Use of ACE and/or ARB Target**	**Actual**	**AV Fistula Placement and Maturation Target**	**Actual**
Baseline	0	0	0	0	0	0
Quarter 4: 09/30/2009 (1st Target)	10% relative improvement		10% relative improvement		5% reduction in quality deficit between regional baseline and 50%	
Quarter 6: 03/31/2010 (Final Target)	40% relative improvement		40% relative improvement		30% reduction in quality deficit between regional baseline and 50%	