

Using practice facilitation and information technology to reduce risk factors for cardiovascular disease (CVD) and improve CVD-related outcomes

Overview of proposed study

Inadequate adoption of guidelines for primary and secondary prevention of cardiovascular disease (CVD)-related illnesses has contributed to growing disparities in CVD-related morbidity and mortality. For example, despite the availability of well-established guidelines for the treatment of hypertension, half of US adults who have been diagnosed with hypertension have poorly controlled blood pressure. Similarly, evidence-based guidelines for treating tobacco use exist, yet smoking remains the number one cause of preventable death and is responsible for 1 in 5 CVD-related deaths in the US each year.

This proposal addresses this research-to-practice gap by developing and testing highly replicable strategies for implementing evidence-based guidelines addressing CVD-related risk factors in Federally Qualified Community Health Centers (FQHCs).

With the launch of a data warehouse and plans to create a technical assistance center, CHCANYS is poised to make a significant contribution to the development of strategies that use enhanced data systems combined with practice facilitation (sometimes referred to as technical assistance) to support improvements in quality of care across a range of key indicators.

In partnership with CHCANYS, and using the Chronic Care Model (CCM) as a framework, we propose to study the impact of different levels of practice facilitation to support innovations in the use of technology to improve adoption of guidelines to reduce CVD-related risk factors and improve CVD-related patient outcomes.

The proposed study will compare the effectiveness of two strategies: 1) Practice facilitation (in person, webinar and telephone support, including support for optimal use of data warehouse tools) vs 2) Support only in the use of data warehouse tools to provide performance feedback and comparison to benchmarks for each health center. The primary outcome will be improvements in provider adherence to evidence-based guidelines for cardiovascular disease care and improved CVD-related outcomes. We will also compare the cost of both implementation strategies. 24 health centers will be randomized into 2 cohorts to adopt the 2 different strategies.

Practice facilitation (PF) has been identified as a potentially key component of successful implementation of guidelines for recommended care. However, there are little data on the effectiveness or cost of this strategy for providers serving low-income minority populations. We hypothesize that practice facilitation will be associated with significant improvements in cardiovascular care and patient outcomes compared with support in the use of the data warehouse alone.

Program Announcement

The proposal would be submitted in response to the Program Announcement titled "Research Dissemination and Implementation Grants (R18) PAR 10-114

<http://grants.nih.gov/grants/guide/pa-files/PAR-10-114.html>

Direct and indirect benefit to the sites

One of the primary benefits to the sites will be improvement in care practices and patient outcomes. All clinic staff and providers will receive training and materials that will increase their capacity to implement the system-level care processes (including new data systems), specified in the Chronic Care Model that have proven effectiveness in improving the management of patients with chronic diseases. All sites will receive a financial incentive to compensate for time allocated to research activities.

Data management

A dataset, developed in collaboration with CHCANYS, that includes only those variables relevant to study outcomes, will be shared with the NYU School of Medicine Research team so that they can conduct data analysis related to the research aims. Consistent with the requirements of the NYU School of Medicine Institutional Review Board, **no** data that is shared with the research team will have identifying patient or provider-level information. In other words, data that is shared with the research team will not be linked to patient, provider or health center specific information that would allow researchers to identify these individuals or sites. Study findings will always be presented at the aggregate level assuring that no individual patient, provider or health center can be identified.

Roles and responsibilities

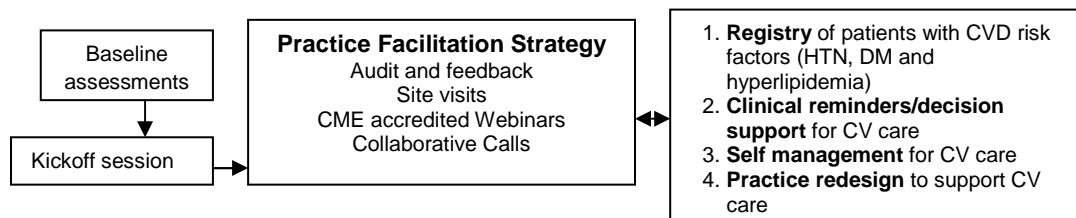
Using the model Dr. Shelley used when conducting a recent project with Open Door Family Medical Centers, the project team will include NYUSOM faculty, representation from CHCANYS' leadership, the practice facilitators or technical assistance experts that CHCANYS will fund through the grant, and at least two practice directors from among the participating sites. This collaboration will ensure that the project is implemented in a way that is consistent with CHCANYS' policies and procedures and is most relevant to the member FQHCs. The goal is to develop an intervention that can be seamlessly integrated into ongoing quality improvement activities.

Two CHCANYS staff members with a minimum of a master's degrees and clinical and managerial experience will be employed as PFs. They will undergo a four week intensive training course focused on quality improvement, change management techniques, the chronic care model, system tools for CVD including evidence-based guidelines, the data warehouse and data extraction from electronic medical records (e.g. creating reports and registries), human subjects research, and group facilitation and communication. Each facilitator will be assigned up to eight intervention practices.

Sites randomized to receive practice facilitation will identify a multidisciplinary improvement team that will consist of the following: Senior team leader, provider champion, data leader and other team members based on the practice as deemed necessary (e.g., health educators, patient navigators, front desk staff.)

The overarching structure of the PF intervention includes: 1) a one day **“kick off” learning**; 2) **practice facilitator onsite meetings** (2-4 hours) every two weeks for three months and then monthly; 3) **six CME accredited webinars** on topics related to cardiovascular care which will be archived (e.g. ATP III guidelines review, treating tobacco use, care management), and 4) **bimonthly collaborative calls** that are facilitated by Kameron Wells (CHACNYS site PI) and Dr. Shelley (MPI) in which sites will have an opportunity to engage in group discussions with their peers, share best practices and resources and present data from their improvement activities (e.g. PDSA cycles). PFs are available for phone and email consultations between team meetings during the 12-month period.

Practice facilitation intervention



PF's activities will include: 1) conducting ongoing **audit and performance feedback**, 2) consensus building around quality improvement goals and strategies, 3) developing **tailored approaches to implementing evidence-based CCM** components for cardiovascular care in the following CCM components: a) decision support (including clinical reminders), b) patient registry, c) self management support tools, and d) practice redesign and 4) **training the practice team to apply PDSA cycles to each CCM strategy** as it is implemented.

During each onsite meeting the PF will provide the implementation team with training and assistance in tailoring and implementing the four CCM strategies. For example, through training and technical assistance, PFs will build practices' capacity to set up registries for patients with specified CVD risk factors, use the registry to design patient recall systems, develop templates for clinical decision support, and provide evidence-based self-management tools including links to community resources (e.g., setting up an electronic system to refer patients to the smoker's quitline). Facilitator's will have a "tool box" of resources and materials for the four CCM strategies to improve CVD outcomes. Facilitators will also bring in experts from CHCANYS and the research team to provide training for specific content areas (e.g., setting up working with the clinical information systems to specify registry functionality).

PFs will meet weekly for supervision with Kameron Wells (CHCANYS site PI) and Dr. Shelley (MPI) in person or via web conference. These meetings are meant to assist PFs in monitoring their practice's progress, to provide additional content expertise and opportunities for problem solving and to review the structured weekly activity reports and monthly narrative reports.

Experience studying quality improvement in community health centers

Dr. Shelley, an Associate Professor at the New York University School of Medicine (NYUSOM), has extensive experience collaborating with FQHCs to conduct research to inform quality improvement strategies. She recently completed a federally funded (Agency for Healthcare Research and Quality) study in collaboration with Open Door (member of CHCANYS) and the Primary Care Development Corporation. The study demonstrated an association between a multi component intervention that included several evidence-based implementation strategies (practice facilitation, clinical decision support, provider feedback and patient self-management) and improvements in blood pressure control among Open Door's minority low income patient population. Dissemination activities have included presentations by Open Door leadership and other members of the research team at several national and local conferences, two articles, co-authored with Dr. Daren Wu and Lindsay Farrell, published in the December 2011 American Journal of Managed Care and a manual, available on the PCDC website entitled "Translating Evidence into Practice: A How-To Manual for Implementing Clinical Decision Support."

Dr. Ogedegbe is a Professor of Medicine in the Department of Population Health at New York University School of Medicine, Director of the Center for Healthful Behavior Change and Director of the Bellevue Hospital Primary Care Hypertension Specialty Clinic. He has expertise in development, implementation and translation of evidence-based behavioral interventions targeted at cardiovascular risk reduction in minority populations into primary care practices and community-based settings.

Sue Kaplan, JD is an Associate Professor in the Department of Population Health and has extensive experience collaborating with primary care clinics and community based organizations on projects that address racial/ethnic health disparities including a national project to improve the delivery of cardiovascular care to minority populations.

Timeline

We propose to submit the grant in January, 2013. Project period will likely begin in early 2014.

OVERVIEW OF PRACTICE FACILITATION INTERVENTION

Practice Facilitation activities (can be a team-based or individual model): The specific activities and time commitments will vary by site.

- 1) Assess the practice and provide performance feedback
- 2) Build relationships with key staff and leadership
- 3) Build capacity of practice to engage in data driven change (e.g., helping set up registries, setting up reports, developing spreadsheets that can generate graphic displays of practice performance over time automatically, helping to develop dashboards)
- 4) Communicate with external experts as needed to bring additional content or other needed expertise to the sites
- 5) Provide training for the practice on QI methods and skills (e.g. PDSA cycles)
- 6) Provide training and TA to the practice in key content area
- 7) Academic detailing as needed
- 8) Facilitate meetings related to the QI activity (anywhere from monthly to quarterly in person and/or by phone)

What is the practice commitment if assigned to practice facilitation?

- 1) Leadership buy-in
- 2) Willingness to attend an in person kickoff learning session
- 3) Willingness to engage in performance feedback
- 4) Willingness to create an improvement team that will serve as the leaders of the project and liaison with the practice facilitator
- 5) Willingness to designate liaison to the practice facilitator or person who will attend the collaborative calls (change leader who is member of the improvement team)
- 6) Willingness to promote and set aside time for providers and staff to attend the bimonthly CME accredited webinars
- 7) Integration of the project into existing QI committee work