Project: TMAP – Training Medical Assistants for the Patient Centered Medical Home

Project Lead: Dana Neutze, MD PhD

Team members: Mark Gwynne, DO; Steven Crane, MD; Cheryl Henderson, RN; Lakeshia Decker, RN; Amy Prentice, MSW, LCSWA

Background:

With the passing of the Affordable Care Act and the creation of Patient-Centered Medical Homes (PCMH) it is clear that transformation within Primary Care will play a critical role in health care system re-design. In order to achieve meaningful change, there is considerable movement to expand training for a non-professional healthcare workforce, such as community health workers and certified medical assistants (CMAs). This is, in part, due to clear evidence that a physician-centered outpatient clinical care model is inefficient and unsustainable. It is estimated that it would take 18 hours per day for a single primary care clinician to provide all evidence-based preventive and chronic disease care for a typical primary care provider’s patient panel. Additionally, Medicaid expansion may result in a significant increase in Primary Care patient panels in the near future without a corresponding increase in primary care providers. The concept of proactive, team-based care within the framework of the Patient Centered Medical Home and the Chronic Care Model presents a potential solution for primary care practices to provide higher quality care to a larger population.

As we move toward a safe, effective, efficient and equitable system of care we have successfully integrated various non-physician providers into the healthcare team. The primary care team has expanded to include pharmacists, care managers, nutritionists, behavioral health specialists and others in successful models such as the IMPACT depression management trial. These disciplines are also now beginning to train in population health strategies and concepts of the medical home. The core functions of primary care practices, the care team microsystems as described by the IOM Crossing the Quality Chasm report, often rely on CMAs whose training has not evolved to accommodate a PCMH team-based approach to care. These clinical support staff, with adequate training, can play a significant role in care coordination, use standing orders to initiate prevention screening, initiate population outreach strategies for high risk patients with chronic disease, and teach patient self-management skills to improve patient activation and thereby extend the reach of the care team.

Many of the outpatient clinics at The University of North Carolina (UNC) employ Licensed Practical Nurses (LPNs) or Registered Nurses (RNs) to provide routine clinical support. However, they are often overqualified for many of the tasks they routinely perform. CMAs, trained in both clinical and administrative duties, can perform the majority of clinical support tasks. A central tenet of the Patient Centered Medical Home and practice transformation is for all team members to function at the highest level of their licensure. Too often CMAs are limited to checking patients in or taking vital signs when many are capable, if adequately trained, of providing a higher level of service and being an integral part of the health care team. By shifting more population health management tasks such as prevention screening and patient outreach to medical assistants, the clinician can focus on more complex patient needs, thus providing higher quality of care.

There is data emerging, both quantitative and qualitative, that describe successes in expanding the role of certified medical assistants. Blash and colleagues, for example, utilized an enhanced medical assistant role and have shown improved diabetes quality metrics, such as decreased A1C and improved blood pressures, and at the same time increased individual provider productivity. And despite hiring more support staff there was a net cost savings to the practice. Bodenheimer et al describe the Teamlet model which uses medical assistants as health coaches to enhance clinical quality and patient activation. There is a gap, however, in this emerging data and training programs that prepare medical assistants to function in these more complex team based systems.

We propose an innovative approach to training CMAs in team-based care concepts. The initial phase focuses on developing training modules and curriculum in team-based care within the medical home, population health strategies and health coaching skills to enhance patients’ confidence and success in behavior change. The second
phase involves partnering with local community college CMA training programs to offer core training sites for team-based care principles. This collaboration will develop a new workforce trained in advanced medical home principles for UNC and UNC affiliated practices, AHEC affiliated practices, and CCNC affiliated practices throughout North Carolina. We will evaluate barriers and facilitators to implementing the training model, effectiveness in teaching core concepts, and effectiveness in achieving improved chronic disease and preventive care metrics.

References:

2) Jürgen Unützer, MD et al. Collaborative Care Management of Late-Life Depression in the Primary Care Setting: A Randomized Controlled Trial. JAMA. 2002;288(22):2836-2845.

Objectives and specific goals

The primary aim of this project is to develop, refine, and implement a model curriculum for training CMAs in concepts of team-based care, population management, and principles of the PCMH. As secondary aims we will evaluate barriers and facilitators to program implementation, measure improvements in career satisfaction and retention of staff, and evaluate improvements in both chronic disease clinical quality measures and preventive care measures. A subsequent goal includes partnering with community college CMA programs to promote a sustainable training model that develops a highly functional primary care workforce.

1) Develop a rigorous curriculum for Certified Medical Assistants in an enhanced role within the Patient Centered Medical Home. Through the use of focus groups with medical assistants, clinicians, administrators, and CMA field preceptors, and evaluating current local and national curriculum in CMA training programs, we will design training modules tailored to the specific tasks that CMAs will be required to perform in this new model of care to include:
   a. Principles of team-based care
   b. Continuous Quality Improvement
   c. Care coordination
   d. Interdisciplinary team communication
   e. Standing orders and Planned Visits
   f. Risk stratification, patient panel management and chronic disease registries
   g. Patient outreach including chronic disease and preventive care
   h. Health coaching and behavior change strategies

2) Improved Clinical Quality and reduced Health Care Costs. Based on emerging data from successful medical home demonstration projects, we anticipate that training medical assistants in this enhanced role will lead to increased clinical quality and cost reduction in several ways. Firstly, training for and routinely implementing standing orders, planned visits, and patient outreach increases the likelihood of patients receiving evidence-based preventive care and routine chronic disease care. We will specifically evaluate clinical metrics for diabetes, congestive heart failure, coronary artery disease and tobacco use, as well as rates of mammogram and colonoscopy. We anticipate near-term cost savings for practices shifting front line clinical support functions to CMAs and transitioning LPNs and RNs to more complex care
management, care coordination or population management roles for the highest risk patients. Lastly, improving job satisfaction and creating a career ladder is expected to result in increased CMA retention and decreased absenteeism, thus reducing the cost and resources required to train new employees.

3) **Create a workforce pipeline for UNC, UNC affiliated practices, AHEC and CCNC practices.** We will partner with community college CMA training programs to support rotations and externships for CMA students. CMAs trained through these programs and at UNC Family Medicine will be well suited for any clinic within the UNC healthcare system, AHEC or CCNC practices throughout North Carolina currently undergoing practice transformation or who subscribe to the concepts of team based care. Because the CMAs will be trained onsite, they will have a working knowledge of the UNC electronic health record thus reducing the length of orientation required once hired. Additionally, by using a standardizing curriculum, the skill level of the enhanced CMAs can be anticipated before they arrive.

**Statement of alignment with missions**

The Center for Innovation strives to improve health outcomes at lower costs. Primary Care Practice transformation within the Patient Centered Medical Home presents a unique opportunity to achieve both of these goals. Well trained CMAs, as key members of the health care team are critical to the success of medical homes and other healthcare environments. Developing this training model at UNC will allow us to develop a workforce prepared to focus on improved patient experience, improved quality of care, and reduced cost and utilization at UNC and throughout the state of North Carolina. Also, developing this training model within a primary care residency practice aligns with The Center for Innovation’s mission of interdisciplinary training.

**Anticipated impact, results and outcomes**

We anticipate that this training program will measurably enhance the skill and abilities of CMAs at the Family Medicine Center (FMC) and within community college CMA training programs. We anticipate improved clinical quality measures and improved practice productivity. Subsequently, we anticipate exponential impact on practices that utilize this well trained workforce and develop highly functional care teams.

Specifically we expect this training model to affect current CMAs by:

- Increasing confidence and knowledge of team based care and population health strategies
- Increasing career satisfaction
- Decreasing absenteeism and increasing staff retention

We expect clinical quality metrics to improve for both chronic disease and preventive care. These will include:

- Diabetes (A1C, BP, Lipids, Foot exam, retinal photography), CAD (BP, lipids), Tobacco (screening and referral to nicotine dependence counseling), CHF (action plan, echocardiogram)
- Prevention: rates of mammography, colorectal cancer screening, influenza and pneumovax

**Metrics:**

**Employee measures:**

- Focus group quantitative data needs assessment of curriculum needs
• Qualtrics survey data on staff confidence and competence in team-based care and population health strategies
• Pre-post staff retention rates, absenteeism
• Qualtrics survey data on provider, staff, and patient satisfaction with defined role of the CMA

Practice level Process measures (pre-post):

• Total cycle time (time from when patient checks in to when they check out, i.e. how long patient is in clinic), time CMA is in the exam room, time provider is in the exam room, total wait time
• Access (Time to Third Available appointment with PCP), rates of Interpersonal Continuity (percent of patient visits that are with their PCP and PCP team)
• Patient phone messaging: average practice response times, percent of messages completed without provider involvement

Patient outcomes (pre-post):

• Quality Measures:
  o Chronic disease: Diabetes (HbA1c, blood pressure, lipids, up to date on retinal imaging and foot exams), CAD (BP, lipids), CHF (documentation of recent echo and action plan)
  o Prevention: mammography, colorectal cancer, and aortic aneurysm screening rates; vaccination rates (pneumococcal, influenza)

Implementation Measures:

• Descriptive data on facilitators and barriers to implementation
• Qualtrics survey data on CMA and provider perception of barriers and facilitators to implementation

Description approach, methods, timeline:

This project involves the design, implementation and evaluation of training CMAs for the PCMH.

Focus groups with medical assistants, clinicians, administrators, CMA field preceptors and patients will be conducted determine specific skills CMAs will need to be key team-members in this new model of care. Once the needs are understood, local and national CMA curriculum will be evaluated to determine which pre-designed modules can be readily utilized and which ones will be need to developed de novo. Modules designed by a curriculum coordinator may include lectures, power-point slides, hands-on workshops and printed materials. It is anticipated that this review and development will take 3-4 months.

The curriculum will initially be implemented with current CMA staff working at the FMC. It will be refined based on feedback at the end of each teaching module. It is anticipated it will take 2-3 months for the current FMC staff to complete all the training modules. Post-analysis data will be collected six months after training is completed. Pre-post-analysis of the employee measures, process measures and patient outcomes listed above will be conducted to ensure effectiveness, efficiency and acceptability of the training program.

After any further revisions of the curriculum are implemented, based on the pre-post analysis, CMAs in-training from local community colleges will be invited to train at the FMC for their clinical externships. On-going evaluation will be conducted to ensure reproducibility of the results before disseminating the program across other UNC and UNC-affiliated practices.
Scalability and sustainability

The intent of this project is to not only train CMAs at UNC, but to develop a training model that can be implemented in almost any clinical setting. Once the curriculum has been developed, tested and utilized by the current staff in the FMC, we will partner with community college programs to place their students in clinical externships at UNC and train under this model. Scalability will occur in two ways. First, we will make the training modules available to UNC and UNC affiliated practices, AHEC and CCNC affiliated practices which will expand our reach throughout North Carolina. Secondly, CMA students trained in these skill sets will join practices throughout the region and state, enhancing team based care wherever they are employed. UNC Family Medicine is a founding member of the I3 collaborative, which has now grown to 33 family medicine, internal medicine, and pediatric residency practices in Virginia, North Carolina, and South Carolina. Through this collaborative, quality improvement and best practices are shared across the region, touching 400,000 patient lives and almost one million patient visits yearly. Successful implementation of this curriculum will be shared and spread within this collaborative.

We anticipate this training program will be financially sustainable once established given that core curriculum will already be developed. Including CMA students-in-training in our center will offload some current CMA tasks, and allow more time for current CMA’s to focus on training, mentoring, and further curriculum development, and help offset the initial costs of the program coordinator. As in our other training programs, the presence of learners will also stimulate continuous curriculum development and improvement.