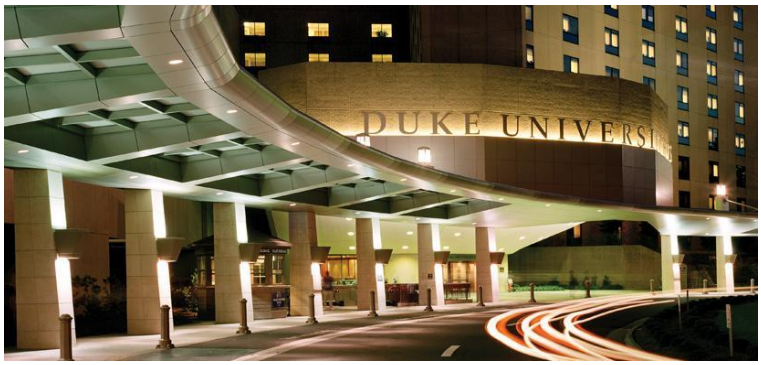
GOOD COMPANIES GOOD JOBS

Care Team Redesign: Transforming the Roles of Medical Assistants in Primary Care

Case Study: Duke Primary Care

Duke Primary Care



Duke Primary Care (DPC) is a wholly-owned subsidiary of the Duke University Health System (DUHS). DUHS offers a full network of health services and encompasses three highly regarded hospitals (Duke University Hospital, Durham Regional Hospital and Duke Raleigh Hospital), physician practices, home hospice care and various support services at locations across North Carolina. DPC consists of 32 primary care practices and 7 urgent care centers located across the Triangle area, which provide comprehensive primary care services including preventive care, chronic illness care, children's health care and well-child visits, family planning and gynecological care and urgent care. All medical assistants employed by DPC are certified by an accrediting body and will subsequently be referred to as CMAs.

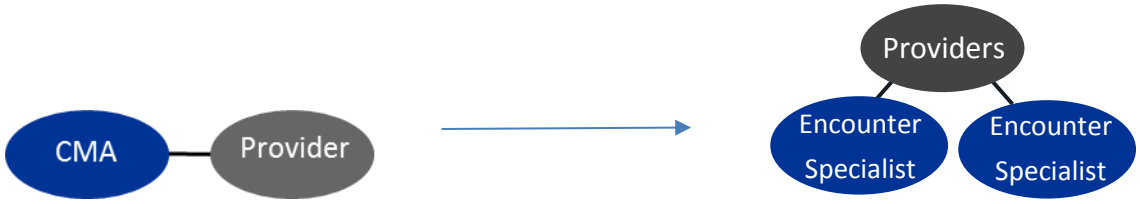
How It All Got Started

In 2014, DPC began an enterprise-wide Transforming Primary Care Collaborative. The collaborative aims to improve efficiency, improve patient experience, improve staff and provider experience, and enhance DPC's capacity for population health. Redesigning and enhancing the role of CMAs was identified as critical for achieving the collaborative aims. Key stakeholders within DPC view the collaborative and it's embedded Care Team Redesign project as central in preparing for the move to value-based care and the opportunity for "shared savings". TPCC and CTRI are also seen as helping DPC maintain and expand the Patient-Centered Medical Home (PCMH) certification across its clinics.

How It Works

The goal of the Care Team Redesign project at DPC is to train existing CMAs to function in a new role known as encounter specialists. Encounter specialists are responsible for managing a patient visit from start-to-finish. Their patient care tasks include key PCMH components such as effective self-management support. An optimally

prepared encounter specialist would plan for the visit (e.g. call patient to discuss goals and adjust scheduling needs), proactively review the patient's medical record to identify gaps in patient care prior to scheduled visits (e.g. population health protocols, panel management tasks), assist providers with documentation during the visit (e.g. scribing history, diagnoses, notes), provide brief health coaching for self-management at the end of the visit, and ensure that any needed follow-up care is scheduled after the visit. To account for new responsibilities, DPC has developed a career ladder to recognize the adoption and competency of the required new skills with corresponding increases in pay for CMAs promoted in the ladder.



Redesigning the model of care. At the start of the grant period, DPC's model of care had each provider working with one CMA. Today, 24 providers in 11 practices have moved toward a model of care with a higher CMA to provider ratio. This has allowed providers to delegate more patient management tasks to CMAs. Two of these practices have reached a "critical mass" where they can see clinic-wide impact on care team practices. On days when providers are in the clinic and the clinic is fully staffed with CMAs, clinic providers are using the two MA encounter specialist model where CMAs take every other patient through the full encounter and function as scribes within the encounter. Because these CMAs are well-trained and the providers are using master templates which CMAs are trained on for scribing, CMAs in these saturated model clinics can interchangeably support providers using the encounter specialist model. This allows for the model work flow to continue even when CMAs are out of the office or provider's schedule varies. The achieved model at the clinic with a "critical mass" of providers using the model is largely how DPC envisioned it from the start of the project. The uptake of the model is not as widespread as was originally envisioned. This is due largely to the difficulty of identifying and moving well-qualified CMAs into the CMA 3 role.

The collaborative is continuing to build supports for the care team. A few of the model practices are also using LPNs as Panel Managers to "scrub" the inboxes of providers. "Scrubbing" inboxes involves responding to patient's emails when possible, removing duplicate emails (e.g., EHR alerts that repeat) and collaborating on messages/phone calls that require provider attention. Our goal is to move towards a system of "one piece flow" that avoids batching of work at the end of a clinical session. DPC is also implementing structured, regular meetings between providers and CMAs, which they call "dyad huddles." Most providers and CMAs have a dyad huddle each day, typically before they start seeing patients. The provider and the CMA discuss patients that they will see during the day and talk about any issues that they anticipate during patient visits. TPCC has recently also introduced population health nurses in some practices to round out the care team and focus on providing Annual Wellness Visits, chronic care management and care transitions. In a related project, DPC employs six depression care managers (linked to a supervising psychiatrist and a pain management specialist) that are available to patients telephonically across the practices. This approach is based on the Collaborative Care Model that was highlighted in the IMPACT study to improve the care of patients with depression.

Health System Characteristics and Other Implementation Context

The implementation team. As discussed, the Hitachi Care Team Redesign grant is funding a small part of a much larger initiative at Duke Primary Care (Transforming Primary Care Collaborative, or TPCC). The Care Team Redesign grant provided resources to also hire two Nurse Educators to oversee CMA orientation and skill training labs. The implementation is well supported by this team as a result of the grant being positioned within the larger Collaborative. Since the TPCC was already in progress prior to the receipt of the Hitachi grant, the team brings experience, lean management, quality improvement/change experience and a history of working well together to the project.

Variation in MA skills and MA recruitment challenges. CMAs employed by DPC have varying levels of skills, depending on where they received their training and past job experience. For example, sometimes CMAs have come from a health care setting where they may not have been using particular skills and are out of practice. Other CMAs are new graduates and lack hands-on experience.. DPC has invested resources in training and education to ensure that all CMAs are able to operate at the top of their license. This meant enriching the Medical Assistant orientation and markedly expanding the on-the-job learning opportunities specifically targeting CMAs. Unlike the other case examples, new CMA hires are required to be certified prior to qualifying for a job. Despite this requirement the educational preparation of these new hires is still quite variable and DPC finds it difficult to recruit CMAs prepared adequately for the encounter specialist role. As an HR representative put it,

> *There is a big gap…we're constantly running them, approximately 28 vacancies on any given day, just in CMA positions. So we have a significant need, it is a pain point, it's preventing us from continuing to spread the encounter specialist model, but there are an awful lot of candidates that we don't ever make offers to and aren't interested in making offers to. So, there is a big gap between the preparation they're getting in the schools and what we feel like we need as an employer.*

Patient-Centered Medical Home (PCMH)

The five core attributes of the PCMH as defined by the Agency for Healthcare Research and Quality are:

1. Patient-centered: The PCMH supports patients in learning to manage and organize their own care based on their preferences, and ensures that patients, families, and caregivers are fully included in the development of their care plans. It also encourages them to participate in quality improvement, research, and health policy efforts.
2. Comprehensive Care: The PCMH offers whole-person care from a team of providers that is accountable for the patient's physical and behavioral/mental health needs, including prevention and wellness, acute care, and chronic care.
3. Coordinated Care: The PCMH ensures that care is organized across all elements of the broader health care system, including specialty care, hospitals, home health care, community services, and long-term care supports.
4. Accessible Services: The PCMH delivers accessible services with shorter waiting times, enhanced in-person hours, 24/7 electronic or telephone access, and alternative methods of communication through health information technology (HIT).
5. Committed to Quality and Safety: The PCMH demonstrates commitment to quality improvement and the use of data and health information technology (HIT) and other tools to assist patients and families in making informed decisions about their health.

https://www.pcmh.ahrq.gov/page/defining-pcmh

Cost challenges in primary care. DPC serves as an entry point for patients into the Duke Health System. There is interest in managing costs in the primary care practices through enhancing the role of CMAs, increasing provider productivity and increasing the ratio of CMAs to providers. The Collaborative understands that as payment models change to increasing proportions of value-based payments, primary care will be essential to meeting benchmarks for population health.

Improved patient experience and staff work culture. Duke University Health System – including Duke Primary Care – face substantial competition from other large health systems in the area, including UNC/Rex Health Care and the WakeMed Health System. DPC is intent on delivering high quality care in a setting that provides the optimal patient experience. We believe this new model will facilitate both of those objectives while contributing to improved patient retention and improved outcomes. Expansion of the CMA role as a valued member of the care team and the opportunity to have greater patient interactions is consistent with our value of "Caring for our Patients, their Loved Ones and Each Other". Furthermore, DPC expects that creating a career ladder will differentiate them in the market for workers and improve their status as an employer of choice.

Variation in physician hours. DPC is also experiencing a trend in their provider workforce to reduce their FTE status. Likely a combination of aging workforce and increasing focus on work-life balance for younger physicians, providers who work based on an employment model in their primary care clinics are often choosing to work less than full-time. This part-time status can lead to difficulties in scheduling CMA shifts. At this point, CMAs are typically hired for full-time positions and paired with one physician. When physicians work less than full-time, it can complicate the ability of DPC to make adjustments to the CMA/physician ratio. This also creates access issues for patients and can impact the financial performance of a practice.

Supportive infrastructure and HR policies. DPC administrators have invested in the Transforming Primary Care Collaborative as a way to meet system wide goals of improving primary care in ways that reflect the PCMH ideal model and that perform well under changing payment models focused on prevention and population health. The heavy focus on CMA role transformation was spurred largely by the opportunity of the demonstration grant which provided a focus on CMAs and instigated system wide HR change to accommodate the revised CMA career ladder. In addition to the newly institutionalized career ladder, the DPC human resources structure is supportive for career advancement with a robust performance review system, employee-specific development plans, MA ladder coaching, leadership development training, competency-based orientation, and educational infrastructure for learning (e.g. learning labs).

Implementation Strategies at DPC

Improving clinical skills. As described above, CMAs employed at DPC have variation in their training and skills, and a goal of the Care Team Redesign project is to establish standardized basic skills training protocols for incumbent workers and execute competency-based orientation for new hires. It was determined early on that clinical skills were a clear focus area, and much of the CTRI grant went to supporting this need. DPC took steps to ensure high participation rates in this training. For example, the system now holds workshops for CMAs on-site at times that are convenient to attend (e.g., lunch hour, etc.). One or two CMA 2 or 3s at each model practice

are designated as staff champions. In their capacity as coaches within their own clinic, these CMAs work with other CMAs to make sure that they understand and are implementing the skills acquired through the new training. This skills acquisition is supported part-time by a Lead MA (CMA 3) who is an established Encounter Specialist within a practice and full-time by two RN educators that run skills labs and continuing education out of a practice space that is no longer seeing patients.

Introducing new skills systematically. DPC is introducing new responsibilities for CMAs in their model practices systematically. These responsibilities include calling patients before a scheduled visit, assisting providers with documentation during the visit, providing brief health coaching at the end of the visit, and ensuring that any needed follow-up care was completed after the visit. For example, CMAs call patients prior to their appointment to briefly discuss the patient's reason for making the appointment. The pre-visit phone calls allow the MA and the physician to be better prepared for the patient's visit because they know what they will need for the visit (e.g., injections, vaccines, blood work, etc.). Both CMAs and providers reported that the pre-visit phone call is a new responsibility that allows their day to run much more smoothly.

As individuals are trained as fully functioning encounter specialists and are taking on the advanced scribing roles within the encounter – documenting histories, visit notes, diagnoses, medications, and plans of care – they work directly with a physician who helps them develop documentation skills using collaboratively built templates. While this strategy has been slow-moving, and has relied on a limited number of physician trainers the method provides for standardization of training and valuable standardization across providers who also learn and use a common system. This means that fully-trained encounter specialists can work potentially with a variety of providers which reduces staffing barriers created by part-time providers. DPC has also recognized that the CMAs in this new role are at risk for increased stress and "burnout". They are developing measures intended to help staff maintain their sense of well-being and resilience. Some of these strategies may include varied work schedules, built in alternating high-intensity and lower intensity work periods, and greater support for tasks from other members of the care team.

Instituting a career ladder for CMAs. DPC had one level of CMAs in their primary care practices at the start of the grant period. As part of the Care Team Redesign project, they extended the career ladder formally across the entire DUHS system to include a Level 2 and Level 3 CMA position. CMA 1 has 8 hours of classroom training (hired as certified/registered MA). CMA 2 has 1 hour of didactic training and on-the-job training to address skill gaps and establish competencies required. CMA 3 has another 8 hours of didactic training and at least 8 hours of on-the-job training to support encounter specialist/Lead CMA skill accrual.

Outcomes Achieved

Improving quality of care. DPC regularly provides their primary care practices with data on measures of quality of care. Staff at all levels reported that they were kept informed of the practice's performance and were aware of efforts to improve particular outcomes. Improving quality of care is clearly important to the organization, and the staff has experience in making changes to improve care.

In their own measurement of quality of care outcomes, DPC found a slight increase in patient satisfaction during the implementation of the Transforming Primary Care Collaborative. Although patient satisfaction was already very high, they were able to make modest and statistically significant improvements in overall patient satisfaction ($p<.05$). They also found evidence of an improvement in physician communication scores in the post implementation period among champion providers (p-value=.0302) as well as the regular providers (p-value=.0220). DPC reports that it is not possible to do a pre/post TPCC analysis on health maintenance data or RVU data due to changes in the definitions of RVUs and what qualifies as compliance in the health maintenance measures.

Restoring "Joy of Practice" and reducing physician burnout. Like primary care practices across the country, DPC acknowledges that provider burnout is a major challenge. Increased administrative burden, EHR-related increases in documentation and pressure to increase their patient loads can contribute to long and rushed workdays. Restoring "Joy of Practice" means increasing direct patient care and reducing the burden of documentation. For providers that have implemented the encounter specialist model, they report increased joy of practice and substantial reduction in administrative work once CMAs are fully trained. According to one provider when asked about whether his "Joy of Practice" was improved as a result of the model,

> *So, if you have two well-trained encounter specialists, your quality of life as a physician is improved dramatically. It takes away a lot of the kind of rote aspects of documentation and dictation and order sets and, finding out which pharmacy [to send prescriptions]. All the minutiae that really doesn't require an M.D. degree to do [is removed] … It's just it frees me up to be more of a doctor.*

Another provider who has two encounter specialists supporting his practice also reports dramatically decreased burden. He says of his work prior to implementation of the model:

> *I'm three-quarters time, and-and the way I operate, I figured it was probably taking me roughly 55 hours a week to do my job without scribes. You know, some people just-some people are faster. Some people are slower. But you know, you may or may not know, I've always had super-high patient satisfaction rates, kind of on the high end of the spectrum here.*

After this quote, the interviewer verifies that he estimates he was working 55 hours per week at .75 FTE. In the exchange, he states that this is an accurate reflection of the situation. He reports that after full implementation of the model, he estimates a 20% reduction in time spent on work. The interviewer does the rough math and asks him if he means 42-44 hours is an accurate reflection of the time spent and he affirms this number and summarizes

> *It's impressive. [The encounter specialists'] notes are excellent, better than my notes were, so I think the documentation is actually better than it was before with the people I have right now. Most of the time, I don't have to do much tweaking.*

Description of notes as better was echoed by other physicians using the encounter specialists. They attribute this both to the standardization of the training of CMAs but also to the fact that they no longer have to wait until the end of the day to finalize the note and have time to forget details beyond the chief complaint.

Empowering CMAs within practices. CMAs were generally positive on the changes made and were feeling empowered by their new ability to be an integrated member of the care team. Many of the CMAs valued the learning, felt as though they were living up to their potential and the interdependence with the provider where they looked out for one another. As one CMA put it,

> *For me, it's a learning experience. Just learning individually about each patient. Their personal lives, but also learning a little more about the anatomy. A little bit more about medical terminology. Things that hadn't even thought of, had never encountered. So for me, it makes it a lot more of a learning environment.*

Another CMA spoke about how it impacted her confidence in her work and gave her way to more fully reach her potential,

> *For me, it feels different. I came from a clinic that was hospital-based where they only let me do vital signs and put a patient in a room. This allows me to work at my full potential. Some people work at a high level, some people do not. I'm one of those ones that work. And I like to work independently. So the more you give me—I can take off and soar.*

Increasing MA compensation and opportunity. The three-tier career ladder was approved by leadership in February, 2016. This new job category rewards CMAs for completion of training, years of experience and increases in responsibility. As of December 2016, 149 CMAs achieved this job category. Approximately 90% of CMA 2 promotions resulted in a pay increase after salary levelling. CMA 3 is a lead job category that includes encounter specialists, lead lab roles, and lead clinic roles. CMA 3s are required to lead an improvement process project and have significant experience in clinics. To date, DPC promoted 150 CMAs to CMA 2s and promoted 30 CMA 2s to CMA 3s (encounter specialists) with an average salary increase of 5-6% for each rung of the ladder.

Sustaining the Changes

The interventions that DPC has implemented as part of the Care Team Redesign grant are viewed as permanent changes within the organization by their leadership team who continues to support their enhancement and spread across the organization.

Short term investments, longer term system-wide improvements. Senior leaders recognize the important role that primary care plays in referrals to acute care and specialty care but they also anticipate changes to the funding models (e.g. ACO arrangements, Medicare Shared Savings Plans, Medicare Advantage) which will place a premium on population health and successful care transitions. For this reason, it is important to reduce overall cost per patient in an incremental and attainable way. At this point, there are no additional revenue or patient panel size requirements placed on model practices that have been given additional staff to transform the care

team. However, after the transformation has been fully implemented, staffing to patient volume requirements by providers will be revisited.

DPC is still in the process of finalizing team care redesign transformation (e.g., CMA, LPN, RN, provider, ancillary supports) and as such, has made significant investments to implement these changes. The investments directly linked to CMA-focused team transformation efforts include: compensation tied to career ladder promotions, two nurse educators that staff the DPC Apex Training Center, FTE of Lead CMA trainers and increased staffing to approximately 2:1 CMA FTE. Taking the long term view, overall team changes will likely lead to increases in provider productivity, increased patient access, improved care management, reduced physician turnover and improved panel management. The net result is the combination of increased efficiencies and improved quality targeted by DPC and the DUHS.

Educational resources in place for DPC. Similar to other care team redesign cases, DPC needed to put a more formal structure in place to ensure that both new hires and incumbent workers had adequate and standardized training for each of the three CMA levels. Adding the Apex Training center with the addition of 2 FTE RN educators and FTE for Lead CMA trainers was necessary to get the initiative off the ground. These costs have been worked into the DPC adminstrative budget and will be sustained to support primary care team development.

Lead roles for CMAs. To date, DPC is using one of their well-trained CMA 3 encounter specialists to support the training center in working directly with practice CMAs on skills, problems and CMA development for promotion on the CMA career ladder. Other CMA 3s are taking on champion roles within practices. DPC is looking at ways to support these “super” CMAs in efforts to support all CMAs. Because there is a greater need for additional Encounter Specialists in order to continue spread of the model throughout the system, DPC is looking at creative ways to recruit directly into this position and support CMAs to attain this level. The three tier career ladder has been fully institutionalized throughout the DUHS. Several CMAs have attained the highest – CMA 3 – level and have received the attendant wage increases in addition to recent market adjustments made by DPC to keep their wages competitive and attract the best candidates.

Hitachi Care Team Redesign Evaluation Team

Dr. Jennifer Craft Morgan is an Assistant Professor in the Gerontology Institute at Georgia State University in downtown Atlanta. Her primary research interest is in workforce studies within health care organizations. She has led six major funded projects evaluating the impact of career ladder, continuing education and financial incentive workforce development programs on health care worker outcomes, quality of care outcomes and perceived return on investment for health care organizations and educational partners. She has published and presented widely in both scholarly and practice-based outlets. Her work seeks to tie research, education and service together by focusing on the translation of lessons learned. This translation of research into lessons and tools serves to help stakeholders, such as employers, program implementers, and workers, to build evidence- based solutions to pressing problems.

Dr. Janette Dill is an Assistant Professor in the Sociology Department at the University of Akron in Akron, OH. Dr. Dill's research focuses on the organization of work, particularly in the health care sector, and the intersection of gender and care work. Her current research focuses on job quality in the health care sector for adults without a college degree and the challenges of reorganizing work in primary care clinics. She is co-investigator on The Care Team Redesign evaluation grant, funded by the Hitachi foundation. Her research has been featured in *the New York Times*, *The Atlantic*, the *Harvard Business Review*, and other press outlets.

Dr. Emmeline Chuang is an Assistant Professor in the Department of Health Policy & Management. Her research focuses on how the organization and management of health and human services affects service access and quality of care, particularly for underserved populations. She is particularly interested in organizational factors that affect adoption, implementation, and sustainment of complex, service-based interventions, and in understanding how inter-organizational relationships and organizational policies and practices affect behavior of frontline staff and ultimately, service access and quality of care for patients. Recent projects include an evaluation of facilitators and barriers to implementing a patient-centered medical home model for women veterans in VA primary care and women's health clinics, a study of primary care team and clinic-level factors affecting human papillomavirus uptake, an evaluation of contextual and organizational factors affecting implementation of two multilevel multisector obesity prevention and control interventions for low-income children and families, and a study of organizational supports that facilitate evidence use by private child and family serving agencies in six states.

Dr. Chivon Mingo is an Assistant Professor in the Gerontology Institute and Affiliate Faculty in the School of Public Health Partnership for Urban Health Research at Georgia State University. With a strong interest in health outcomes and healthcare care, Dr. Mingo has centered her work on minimizing the impact of negative health outcomes in underserved groups through the design, evaluation, implementation, and dissemination of behavioral health interventions. Specifically, she has been able to explore the barriers and facilitators that impact availability, acceptability, cultural relevance, utilization, completion, and fidelity of an evidenced-based interventions for chronic disease management. Most recently, Dr. Mingo served as the Principal Investigator on a National Institute on Aging (NIA)/Michigan Center for Urban Aging African American Research (MCUAAAR) funded project to assess barriers and facilitators to utilization of the Chronic Disease Self-Management Program in the Atlanta Region. Dr. Mingo is highly engaged in other funded research projects focused on health and health related interventions. Her knowledge in intervention design, evaluation, and delivery translates seamlessly to the knowledge needed in development and evaluation of health care workforce interventions that will not only influence the health care worker but also the patients that they serve.

Dr. Crystal Warren Williams is an Assistant Project Director with the Gerontology Institute at Georgia State University. Dr. Williams manages the Hitachi Care Team Redesign National Evaluation Project. She provides research and administrative support in grant management, survey administration, qualitative interviews, data analysis, and research dissemination. Dr. Williams has a Doctor of Public Health (DrPH) in Behavioral and Community Health Sciences. Prior to joining the Hitachi evaluation team, Dr. Williams worked with health and human services organizations and consulting firms, providing applied research support and project management for evaluation studies, and strategic planning and leadership development initiatives focusing on policy and systems change necessary to improve community health and achieve health equity.

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