GOOD COMPANIES GOOD JOBS

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

Case Study: Anne Arundel Medical Center

Anne Arundel Medical Center (AAMC)

Anne Arundel Medical Center (AAMC) is a regional health system headquartered in Annapolis, Maryland. AAMC serves an area of more than one million people. Founded in 1902, AAMC includes a not-for-profit hospital, a medical group, imaging services, a substance use treatment center, and other health enterprises. AAMC is comprised of sixteen practice sites across four counties, serving diverse populations in a variety of settings. The focus of the Care Team Redesign project is the 30 primary care practices within the AAMC umbrella.

How It All Got Started

AAMC senior leadership started the Essential Skills team and this MA-focused redesign program in an effort to transform the patient experience, improve access by increasing the capacity of providers to meet the needs of larger panels of patients and to enable all AAMC primary care practices to meet Patient Centered Medical Home criteria (See PCMH attributes box). AAMC embarked on their particular Care Team Redesign (CTR) project to improve and propogate a successful, homegrown model of care. The project began with two primary objectives — first, to provide medical assistants (MAs) in each practice with an opportunity to develop new skills that, upon mastery, would be rewarded through advancement and compensation, and second to promote each clinician's adoption of team-based care delivery by leveraging the medical assistants' new skills to ensure each practice's success. The proposed team-based care delivery model at AAMC is largely based on one developed by one of AAMC's pioneers, Dr. Scott Eden. This model consists of 1) increasing the number of MAs from one to two for each provider and patient panel and 2) using MAs for

tasks that support providers to give quality care more efficiently. For example, Dr. Eden developed patient interview protocols that allow MAs to extract information from patients in a clear and concise way using templates based on diagnoses. Once information is organized, providers can review, ask clarifying questions and exam the patient. This saves time in the patient encounter and empowers MAs to get to know the patient, utilize more skills and form a relationship that is important for follow-up and patient engagement with the practice. This is just one example of strategies that support providers to see more patients, empower MAs to do more support tasks and allow for more patient engagement with the care team while increasing provider capacity.

How It Works

The AAMC Essential Skills team, formed just before the start of the grant period, has focused the majority of its efforts on building AAMC capacity to a) standardize the skills of entry-level MAs through improvements to onboarding, certification process and preceptor support, b) increase access to high-quality training strategically targeting skill accrual, and c) developing high quality wrap-around supports for clinic MAs and practices (e.g. clinical educators, panel managers, float pool MAs). The AAMC Care Team Redesign program provides competency-based training using a combination of online self-paced learning, primary care wide enrichment events, classes with the Essential Skills team instructors and one-on-one support from clinical educators who are highly qualified MAs. Universal skills assessments and development plans, support for national level certification, within clinic support by clinic educators for onboarding, "ringlets" – written resources bound by a ring that summarize classroom learning, enrichment events and classroom and online learning opportunities combine to instigate not only standardization of skills but also opportunities for advanced learning. While AAMC intended to propagate Dr. Eden's model of 2 MAs:1 provider, barriers related to provider buy-in and provider reluctance to bear the cost of additional MAs have slowed or stalled adoption of that model. AAMC made the strategic decision to provide additional wrap-around supports for clinics and MAs which include advanced roles for MAs within the educational and administrative structure of AAMC. These advanced roles include float pool MAs, panel managers and clinical educator roles.

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

Health System Characteristics and Other Implementation Context

Rapid growth. AAMC is experiencing rapid growth in primary care, where it has acquired or opened around 12 practices over the last two years. The majority of these practices were previously physician-owned practices in the region that have been acquired by AAMC. When AAMC acquires a practice, the staff at the clinic are retained, but they are required to start using AAMC's systems for scheduling/billing (Athena) and Electronic Health Records (EHR) (Epic). Such rapid growth has increased the need for standardization across all of AAMC's primary care clinics, and for comprehensive training for MAs in newly acquired practices. This training has been provided by The Essential Skills Team (see below), which manages training for all MAs across the primary care clinics for AAMC. The rapid growth has been a challenge for the team, however, as newly acquired clinics are often geographically far away, and training existing staff on AAMC's EHR and scheduling system, in addition to onboarding, can be time intensive.

The Essential Skills Team. The Essential Skills Team at AAMC is responsible for MA training across the primary care clinics. There are seven full-time employees on the team, including Kim Tucker, who is the head of the department. This team includes three clinical educators who are highly qualified MAs and three technical instructors who focus on the scheduling and EHR training. The Essential Skills Team has many responsibilities at AAMC, including providing orientation and training for all new MAs, managing "go-lives" for newly acquired practices, creating curriculum and training for skills where MAs need additional assistance, providing one-on-one mentoring and training for new MAs and MAs that may need extra assistance with a particular skill, managing a "float pool" of MAs that are available to fill in at a practice if another MA calls out, working with a team of three panel managers (two MAs and one LPN) to identify care gaps across specific panels, and very recently, coordinating a centralized scheduling phone line for primary care clinics and a telemedicine option for patients.

Variation in MA skills. As AAMC was growing rapidly and acquiring new practices, they recognized that they had wide variation in skills on their MAs. To address this problem, they created the Essential Skills Team, which has worked to standardize MA skills and training within and across all of AAMC's primary care clinics. While the Essential Skills Team has made substantial progress, AAMC continues to see wide variation in the tasks that different MAs perform for providers and the degree to which each MA is working at the top of their "scope of practice."

Implementation Strategies at AAMC

Orientation and onboarding. A major component of the MA Redesign Project at AAMC was implementing a standardized and comprehensive orientation process for new MAs. The orientation process now lasts over a week and includes two days of general training and introduction to working at AAMC, two days of training in the EHR system (EPIC) and scheduling and billing system (Athena), and two days of one-on-one training in the clinic where they are precepted by one of the MA clinical educators. The content of the orientation is much broader than what was previously offered and has helped AAMC move towards having more standardization in MA skill across their primary care clinics.

Continuing education. The Essential Skills Team provides ongoing continuing education for MAs across AAMC's primary care clinics. Interviewees talked about many ways in which ongoing training is provided for MAs. First, a member of the Essential Skills Team visits the clinic to provide additional training on a topic, a new piece of equipment, or a upgrade in the EHR system. In addition to in-person instruction, the Essential Skills Team has also created topic *ringlets*, which are laminated cards which provide information and instructions for MAs around specific topics of interest. Second, the Essential Skills Team has hosted quarterly training events that MAs are expected to attend. Such events have been held in the evenings or on a Saturday, and MAs are compensated (in overtime pay) for attending. Finally, if an MA is struggling with a particular skill, the Essential Skills Team will send out an individual to help that MA bring up their skill level.

Certification. Prior to the MA Redesign Program, AAMC did not require that MAs working in their primary care practices were certified. AAMC now requires new hires to take the MA Certification test within 30 days of employment and offers study groups and onsite testing with certified proctors from the National Healthcare Association. This requirement was one big step forward in standardizing MA skills across the system.

Provider/MA ratios. Dr. Eden continues to perfect his model but only a few physicians at AAMC have chosen to use two MAs per provider in their practice, as compared to the 1 MA:1 Provider ratio that is most common at AAMC. Dr. Eden's model consists of 1) increasing the number of MAs from one to two for each provider and patient panel and 2) using MAs for tasks that support providers to give quality care more efficiently. Dr. Eden's MAs are highly trained and are involved with the encounter from start to finish. The MAs plan for the visit (e.g. review chart for diagnostic information), 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 the providers with documentation during the visit (e.g. history, diagnoses) without scribing notes, provide brief health coaching for self-management at the end of the visit, and ensure that any needed follow-up care is completed after the visit. For example, Dr. Eden developed patient interview protocols that allow MAs to extract information from patients in a clear and concise way using templates based on diagnoses. Once information is organized, providers can review, ask clarifying questions and examine the patient. This saves time in the patient encounter and empowers MAs to get to know the patient, utilize more skills and form a relationship that is important for education, follow-up, patient engagement with the practice and transition management. Kim Tucker estimated that twelve providers within the AAMC primary care system now use two MAs per provider. There have been a few providers that started the 2 MA model and chose not to refill positions when there was turnover.

Creation of new jobs for MAs. AAMC has created some new positions for MAs that provide wrap-around supports for both MAs and clinics and some advanced roles within clinics. First, the three clinical educator positions on the Essential Skills Team are filled by MAs, allowing them to move into positions where they focus solely on providing training and creating curriculum for other MAs. Second, the Essential Skills team invested in extra training for float pool MAs so they could act as extenders of the Essential Skills teams to improve standardization of practices within clinics when filling in for MAs on leave or paid time off. Finally, they have created positions for MAs (or LPNs) as panel managers. These positions work together to identify

care gaps in the EHR and communicate with clinic MAs and providers to alert them to gaps. Further, advanced MAs also fill some site coordinator positions in Lead MA roles. Site coordinators are responsible for the daily flow of the clinic, including scheduling MAs and front desk workers, dealing with worker call-outs, and ordering supplies.

Outcomes Achieved

Increased efficiency and patient access. Moving the primary care practices towards a 1:2 physician to MA ratio allows physicians to see more patients in a day, increasing patient access to primary care. The standardization of MA skills is also aimed at increasing efficiency in and across the clinics. For example, ongoing training in the EHR system can allow MAs to work faster with fewer mistakes.

Improvements in quality of care. AAMC has made consistent progress in improving patient care outcomes. For example, the rate of Pneumococcal Vaccine administration increased from 71% to 88% between 2015 to 2017. Over the same time period, Fall Risk Assessment increased from 49% to 73%. Dramatic improvements were made in Mammography Screening (43% to 77%) and BMI Screening (22% to 97%) over the grant period. This is likely attributable to the improved training and standardization of skills across AAMC system focused on MAs use of the EHR, scheduling system and their clinical skills.

Empowering MAs within practice. MAs who worked on a team of two MAs per provider expressed that they enjoyed working at a high skill level and performing a diverse set of tasks throughout the day. They all reported that they appreciated their relationship with the provider that they work with, and felt trusted and valued by the provider. The MAs also reported that they enjoyed working together as a team and that they felt supported by the other MA throughout the day.

New roles for MAs. As described above, AAMC has a number of roles for MAs to advance into if they want to advance or move out of a clinical role.

- Medical Assistant Basic (entry-level) - average of $17.53 per hour; full-time annualized $36,462
- Medical Assistant Advanced (lead MA) - $19.70 per hour; full time annualized $40,976
- Medical Assistant Expanded (float pool, panel managers, clinical educators) - $24.52 per hour, full-time annualized $51,002

Increased revenue. Dr. Eden's model practice where the two MA model has been fully implemented has continued to improve in terms of both revenue and access. Dr. Eden has added a nurse practitioner to his practice who will further enhance the practice in terms of access and focus on preventive health care (e.g. weight loss management) and well-being (e.g. annual wellness visits). This model has reduced his documentation burden, increased his reported joy of practice, reduced wait times to see him in the office and improved practice revenues and enabled him to take on a nurse practitioner to further improve the model.

Sustaining the Changes

The changes that AAMC has made as part of the Care Team Redesign grant are viewed as permanent changes within the organization and continue to be embedded under the leadership of the Essential Skills Team.

Short term investments, longer term system-wide improvements. AAMC has made significant investments to implement Care Team Redesign strategies in their primary clinics. The investments directly linked to MA-focused team transformation efforts include: the establishment of the Essential Skills Team, including three MAs serving as educators, the standardization of MA orientation and ongoing skills training, new roles for MAs (e.g. float pool and panel managers) and increased staffing in some model clinics to 2:1 MA:Provider. These overall team changes have had an impact on quality of care and modest increases in provider productivity where the 2:1 model is fully implemented.

AAMC is using qualified MAs in key leadership roles. AAMC has hired three MAs as clinical educators in the Essentials Skills Team. As primary instructors and preceptors within the clinics, clinical educators serve as a role model for other MAs regarding what they can accomplish within the organization and also as ambassadors for primary care providers, through their leadership, help providers understand the broad knowledge base and skill set MAs achieve through accredited MA programs. These MA educators implement classroom-based instruction, stand by MAs in newly acquired practices during "go live" phases, support onboarding out in the clinics and generally help clinics deal with any skills and fit issues related to MAs at clinics.

AAMC has begun an extensive onboarding process for MAs. The orientation and onboarding process has been lengthened and expanded to support MAs in primary care. The orientation process lasts over a week and includes two days of general training and introduction to working at AAMC, two days of training in the EHR system (EPIC) and scheduling and billing system (Athena), and two days of one-on-one training in the clinic where they are precepted by one of the MA clinical educators. AAMC also requires new hires to achieve certification within 30 days of hire. AAMC pays for the testing and clinical educators are qualified to proctor the exam.

Career ladders for MAs. As described above, AAMC has a number of new roles for MAs to move into if they want to advance their careers. While AAMC has created a career ladder for MAs that provides opportunities for MAs to advance within the role of MA, they have not fully implemented these changes. MAs have not been able to apply for and receive promotions consistently within the clinics. At the beginning of the Care Team Redesign program, MAs were promised raises and promotion if they completed training outside of their standard work hours (e.g., evening and weekends). While MAs have been compensated with overtime pay for attending additional training and have received merit increases where feasible, the career ladder that was described to MAs has not been fully implemented within clinics.

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.

The Care Team Redesign National Evaluation Project was funded by the Hitachi Foundation.