# ANNE ARUNDEL MEDICAL CENTER: A CARE TEAM REDESIGN CASE STUDY

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## Introduction

*What if one key to improving the quality and delivery of health care in the United States is held by frontline clinical support workers? This question lay at the heart of the Care Team Redesign (CTR) Initiative, a multiyear effort to transform workforce practices and the delivery of care in four high-performing primary care systems.*

*The U.S. health care system is plagued by high costs that too often yield middling patient care outcomes. Some attempts at solving this problem have focused on taking a team-based approach to delivering care. Such an approach provides more support to overburdened doctors and nurses, while improving the management of patient data.*

*However, there have been few efforts that really focus on the most common support staff members in primary care teams — medical assistants (MAs). Launched by the Hitachi Foundation in 2014, the Care Team Redesign Initiative sought to change that. It challenged each of the four primary care systems to develop career ladders for their MAs and find new tasks and roles for them within the care team. The sites each took a different approach to this challenge, but all fundamentally shifted roles and responsibilities on their care team, with the goals of improving patient care and increasing efficiency.*

*As part of the CTR Initiative, Anne Arundel Medical Center in Maryland was one of the four health care systems that each received a $200,000 grant from the Hitachi Foundation. Each organization also received technical assistance from the Healthforce Center and the Center for Excellence in Primary Care, both at the University of California, San Francisco.*

*After the Hitachi Foundation closed in 2016, the Care Team Redesign project continued through a collaboration involving the Good Companies, Good Jobs Initiative at the MIT Sloan School of Management and the Good Companies, Good Jobs Initiative at the Aspen Institute. A third-party evaluation of the results was subsequently conducted by a team of academic researchers, led by Jennifer Craft Morgan of Georgia State University's Gerontology Institute. This case study describes the changes Anne Arundel Medical Center made and the outcomes that resulted.*

***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 1 million people. Founded in 1902, AAMC includes a not-for-profit hospital, a medical group, imaging services, a substance abuse treatment center, and other health enterprises. AAMC is comprised of 16 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 the Care Team Redesign Project Got Started

AAMC senior leadership started the Essential Skills Team, and this redesign program focused on medical assistants (MAs) 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 (PCMH) criteria (See PCMH attributes box, right). AAMC embarked on its Care Team Redesign project to improve and propagate a successful, homegrown model of care. The project began with two primary objectives — first, to provide MAs in each practice with an opportunity to develop new skills that, upon mastery, would be rewarded through advancement and additional compensation, and second, to promote each clinician's adoption of team-based care delivery by leveraging the MAs' 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 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 follow-up and patient engagement with the practice. This is just one example of a number 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.

### Patient-Centered Medical Home (PCMH)

The patient-centered medical home model represents a change in the way primary health care is delivered in the U.S. The five core attributes of the PCMH as defined by the U.S. Agency for Healthcare Research and Quality are:

1. Patient-Centered: The PCMH supports patients in learning to manage their care based on their own preferences and ensures that patients, families, and caregivers are fully included in the development of care plans.
2. Comprehensive Care: The PCMH offers whole-person care from a team of providers that is accountable for addressing most of the patient's physical and behavioral/mental health needs, including not only acute and chronic care but also prevention and wellness.
3. Coordinated Care: The PCMH ensures that care is organized across all elements of the health care system, from specialty care and hospitals to home health care and community services.
4. Accessible Services: The PCMH provides shorter waiting times for urgent issues, improved in-person hours, 24/7 electronic or telephone access, and communication through health information technology.
5. Committed to Quality and Safety: The PCMH is committed to quality, quality improvement, and the use of data and decision-support tools to assist patients and families in making informed decisions about their health.

Adapted from: www.pcmh.ahrq.gov/page/defining-pcmh

## How It Works

The AAMC Essential Skills Team has focused the majority of its efforts on building AAMC's capacity to (a) standardize the skills of entry-level MAs through improvements to onboarding, the certification process, and preceptor support; (b) increase access to high-quality training that strategically targets skill accrual; and (c) develop high-quality wraparound 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, 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. However, AAMC made the strategic decision to provide additional wraparound supports for clinics, including advanced roles for MAs within the educational and administrative structure of AAMC rather than embedded directly in each clinic. These advanced roles include float pool MAs, panel managers, and clinical educator roles.

## 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 a two-year period. 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 (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, which manages training for all MAs across AAMC's primary care clinics. The rapid growth has been a challenge for the Essential Skills Team, however, as newly acquired clinics are often geographically far away, and onboarding clinic staff and training them on AAMC's electronic health records (EHR) and scheduling systems can be time-intensive.

***The Essential Skills Team.*** There are seven full-time employees on the Essential Skills 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 training related to the scheduling and EHR systems. The Essential Skills Team has many responsibilities at AAMC, including providing orientation and training for all new MAs, managing technology start-up for newly acquired practices, creating the 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 who 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, the organization recognized that its MAs' skill levels varied widely. To address this problem, AAMC 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 his or her "scope of practice."

## Implementation Strategies at AAMC

***Orientation and onboarding.*** A major component of the Care Team Redesign project at AAMC was implementing a standardized and comprehensive orientation process for new MAs. The orientation process now lasts more than 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 new MAs 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 toward having more standardization in MA skills across its primary care clinics.

***Continuing education.*** The Essential Skills Team provides ongoing continuing education for MAs in 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 an upgrade to the EHR system. In addition to in-person instruction, the Essential Skills Team has also created topic "ringlets," which are laminated cards that 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 her or his skill level.

***Certification.*** Prior to the Care Team Redesign project, AAMC did not require that MAs working in its primary care practices be certified. AAMC now requires new hires to take the MA certification test within 30 days of employment and offers study groups and on-site testing with certified proctors from the National Healthcareer Association (www.nhanow.com). This requirement was a 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 practices, as compared to the 1:1 MA to 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 patient encounter from start to finish. The MAs plan for the visit (e.g., review the 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. Kim Tucker of AAMC estimates that 12 providers within the AAMC primary care system now use two MAs per provider. There have also been a few providers who started the two-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 wraparound supports for both MAs and clinics as well as some advanced MA 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 a 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 Team to improve standardization of practices within clinics when filling in for MAs who are on leave or taking paid time off. Finally, AAMC has created positions for MAs (or LPNs) as panel managers. These panel managers work together to identify care gaps in the EHR and communicate with clinic MAs and providers to alert them to the 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 absences, and ordering supplies.

## Outcomes Achieved

***Increased efficiency and patient access.*** Moving the primary care practices toward a 2:1 MA to physician 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 body mass index (BMI) screening (22% to 97%). This is likely attributable to the improved training and standardization of skills across the AAMC system — training which focused on MAs' use of the electronic health record, scheduling system, and clinical skills.

***Empowering MAs within practices.*** 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 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 salary of $36,462
- Medical Assistant Advanced (lead MA): $19.70 per hour; full-time annualized salary of $40,976

- Medical Assistant Expanded (float pool, panel managers, clinical educators): $24.52 per hour, full-time annualized salary of $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 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, 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 its primary clinics. The investments directly linked to MA-focused team transformation efforts include: the establishment of the Essential Skills Team, 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 to provider. These overall team changes have had an impact on quality of care and where the 2:1 model was fully implemented, there have been modest increases in provider productivity.

***AAMC is using qualified MAs in key leadership roles.*** AAMC has hired three MAs as clinical educators on the Essentials Skills Team. As primary instructors and preceptors within the clinics, clinical educators serve as role models to other MAs regarding what they can accomplish within the organization and also as ambassadors for primary care providers who will help the 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 technology start-up phases, support onboarding out in the clinics, and generally help clinics deal with any skills and fit issues related to MAs at clinics.

***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 MA role, the organization has 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., on evenings 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.

## The Care Team Redesign Evaluation Team

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