

# Career Ladders for Medical Assistants in Primary Care Clinics



Janette Dill, PhD<sup>1</sup> , Jennifer Craft Morgan, PhD<sup>2</sup>, and Emmeline Chuang, PhD<sup>3</sup>

<sup>1</sup>Health Policy & Management, School of Public Health, The University of Minnesota, Minneapolis, MN, USA; <sup>2</sup>Gerontology Institute, Georgia State University, Atlanta, GA, USA; <sup>3</sup>Mack Center on Nonprofit and Public Sector Management in the Human Services, School of Social Welfare, University of California, Berkeley, Berkeley, USA.

**BACKGROUND:** This study examines the use of career ladders for medical assistants (MAs) in primary care practices as a mechanism for increasing wages and career opportunity for MAs. A growing body of research on primary care suggests that successful expansion of support staff roles such as MAs may have positive organizational and quality of care outcomes, but little is known about worker outcomes.

**OBJECTIVE:** Evaluate the effectiveness of career ladders in improving wages and career opportunity among MAs.

**DESIGN:** We use a mixed-methods design to evaluate the impact of career ladders on MA job quality.

**PARTICIPANTS:** We draw on interview data collected from 115 key informants at four large health systems (ranging from 24 to 29 clinics each), and we analyze wage and employment data for MAs from primary care clinics in the four health systems in the sample.

**APPROACH:** We describe the MA career ladder context and infrastructure within primary care clinics and evaluate the rewards to MAs for participation in the career ladder programs.

**KEY RESULTS:** The expanded roles within career ladders for MAs focused on the following four clinical and educational areas: panel management and care coordination, EHR documentation support, supporting delivery of person-centered care, and supervision and training. The three primary components of the career ladder infrastructure were training and education for MAs and providers, credentialing and certification for MAs, and differentiated job levels for MAs. The use of career ladders in the four large health systems in our case study sample resulted in yearly income increases ranging from \$3000 to \$10,000 annually.

**CONCLUSION:** Investing in career ladders in primary care clinics can improve MA job quality while also potentially addressing issues of equity, efficiency, and quality in the health care sector.

**KEY WORDS:** career ladders; job quality; health care workforce; medical assistants; primary care.

J Gen Intern Med 36(11):3423–30

DOI: 10.1007/s11606-021-06814-5

© Society of General Internal Medicine 2021

Received September 18, 2020

Accepted April 6, 2021

Published online May 5, 2021

## INTRODUCTION

Medical assistants perform entry-level patient care in primary care offices (e.g., rooming patients, taking patient histories, and giving injections), but efforts to reform primary care increasingly focus on expanding the role and skill level of MAs in patient care.<sup>1–3</sup> A growing body of research on primary care suggests that successful expansion of support staff roles such as MAs may have positive organizational and quality of care outcomes, including controlling costs, reducing provider burnout, and improving patient care.<sup>4–12</sup> The expanded roles for MAs in primary care may provide opportunities for MAs to climb career ladders by gaining additional training, skills, and responsibilities, but little is known about whether these changes in the roles of MAs improve their job quality.<sup>13</sup>

We aim to evaluate the effectiveness of career ladders in improving wages and career opportunity among MAs. We use mixed-methods data from case studies of four large health care systems across the USA where career ladders for MAs were being implemented as part of larger primary care transformation efforts. We describe the context and infrastructure of career ladders in the health care setting, and we evaluate rewards to workers in terms of promotion and compensation for participation in career ladder programs.

## Medical Assistant Job Quality

Many definitions and dimensions are used to conceptualize job quality, from pay and benefits to skill, autonomy, and overall job satisfaction.<sup>14–16</sup> However, following Kalleberg (2011), we focus on extrinsic job rewards such as compensation, benefits, and opportunity for promotion as central components of job quality.<sup>17</sup> Medical assistants earn around \$16 dollars per hour on average, or around \$34,000 per year.<sup>18</sup> The low wages of medical assistants may make it more difficult to recruit and retain these workers; a recent study out of the state of Washington found that nearly 60% of MAs planned to leave their jobs within five years.<sup>19</sup> Further, past research has shown that wages and compensation are far more important in predicting turnover than job satisfaction or other more subjective measures of job quality among direct health care workers.<sup>20–22</sup>

The compensation of MAs is also important from the perspective of gender and racial equity in the health care sector.<sup>23</sup> The occupation of medical assistants is heavily dominated by

women, and women of color are overrepresented (according to the authors' calculations using IPUMS-CPS).<sup>24</sup> The US health care system perpetuates systemic racial inequality in devaluing the labor of direct care health care workers like medical assistants,<sup>25</sup> and health care organizations can reduce gender and racial inequality by raising wages and creating advancement opportunities for workers in direct care occupations like medical assistants.<sup>25</sup>

## Conceptual Framework

In this paper, we examine the use of career ladders for MAs in primary care practices as a mechanism for improving the compensation and promotion among MAs in primary care clinics. Our conceptual model is shown in Figure 1 and is adapted from previous work by Dill, Chuang, et al. (2014) and Garman, McAlearney, Harrison, Song, and McHugh (2011). Our conceptual model of career ladders includes three primary fields: the career ladder context, including the external and organizational characteristics in which the career ladder is being developed, the infrastructure involved in building the career ladder, and the outcomes of the career ladder. In this paper, we only focus on the shaded gray areas of the conceptual model, including health system characteristics that are part of the career ladder context, the educational, credential, and job levels that are part of the career ladder infrastructure, and the outcomes that workers experience as a result of the career ladder program.

Past research has demonstrated that the organizational context in which career ladders are being developed plays an important role in terms of the outcomes of career ladders, including the strategic priorities of the organization, the leadership support for the project, and the experience the health care organization has in collaborating with educational institutions.<sup>26,28</sup> Career ladder infrastructure typically requires that workers obtain

additional skills and training, either internally or at an educational institution, and often require earning additional credentials.<sup>29,30</sup> As workers gain additional skills and responsibilities, they are able to move into differentiated roles and job levels within the organization, which in this case is primary care clinics.<sup>1,30</sup> Career ladders and human resource practices related to career mobility can increase worker compensation, job satisfaction,<sup>31</sup> and perceived career mobility.<sup>32</sup>

The purpose of this study is to describe the health care context and infrastructure needed for building career ladders, and to examine whether these workforce development efforts improve job quality for MAs. Prior research on MAs has focused primarily on costs of primary care reform or on association with patient outcomes.<sup>1,4,33</sup> This study extends this work by using organizational surveys and key informant interviews to understand implementation of career ladders for MAs in primary care and their effectiveness at improving MA job quality.

## METHODS

We use a mixed-methods design to analyze four case studies of MA career ladder programs in four large health care systems. A brief description of each health care system is provided in Appendix A (Appendix Table 1). The number of primary care clinics within these health care organizations ranged from 24 to 29; the primary care clinics in all four health systems have adopted the patient centered medical home (PCMH) model and are recognized as PCMHs by national accrediting bodies. These four systems received grant funding through the Hitachi Foundation Care Team Redesign Initiative to implement programs aimed at expanding the roles of MAs in primary care and creating career ladder opportunities for MAs.

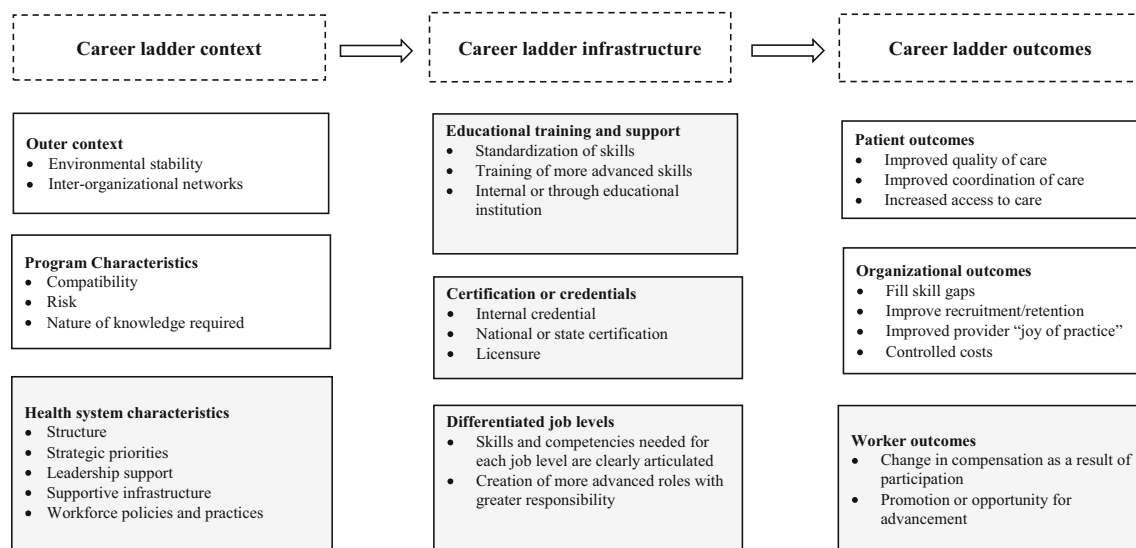


Figure 1 Conceptual model of career ladder context, infrastructure, and outcomes. *Note:* This conceptual model is adapted from previous work by Dill et al.<sup>26</sup> and Garman et al.<sup>27</sup>

We conducted 115 semi-structured key informant interviews across the four systems over the three-year project period (2015–2017). Interview data were collected prospectively as the systems implemented the MA redesign programs; all interviews were conducted by the investigator team. Key informant interviews were conducted two times over the project period, but interviews with program managers were conducted four times throughout the implementation process. Examples of key informants are as follows: Care Team (e.g., nurse, office manager); Educator (e.g., nurse or advanced MA in centralized training role); Finance (e.g., CFO); Key Stakeholder (e.g., Nurse Manager/Supervisor, HR personnel, Director, VP); MA (e.g., program participant); Program Manager; and Provider (mostly physicians, but could also include physician assistants or nurse practitioners). The strategy of multiple types of key informants was purposively designed to gather information from multiple perspectives within each case study organization. This was critical to understanding the organization-wide context of implementation of career ladders.

Most interviewees were the same from baseline to follow-up, but interviewees were replaced if the person left the position at the organization. We have included the number and types of people interviewed by site in Appendix A (Appendix Tables 2 and 3). The interviews took place either in person at the respondent's place of work or over the phone and lasted about thirty minutes. Interview questions were tailored by role but generally focused on the career ladder program, how it was implemented, and perceived impact on MAs, the care team, or the organization as a whole. The interviews were recorded and transcribed verbatim. Finally, the sites provided wage and employment data on MAs in participating primary care clinics at the end of the grant period, after the career ladders had been fully implemented. Data from interviews were triangulated with organizational data to develop a comprehensive understanding of the career ladder program and their impact on participating organizations.

Interview transcripts were coded for themes using NVivo 12. Coders, which included the authors and graduate research assistants, were trained to apply codes consistently. An overview of the subject codes used to analyze the data is included in Appendix B. Open coding was done within the subject codes to examine major themes more deeply (e.g., career ladder policies and practices, worker outcomes) within each of the subject codes. The semi-structured interview data and subsequent subject and open codes, along with the authors' expertise and perspective as evaluators, were used to evaluate the career ladder programs and outcomes.

## FINDINGS

Our goal in this section is to describe the career ladder context and infrastructure, and to evaluate the rewards to MAs for participation in the career ladder programs. Our

conceptual model of career ladder infrastructure and workers outcomes is shown in Figure 1. We begin with the career ladder context, where we discuss the external and organizational context in which the career ladders for MAs were being developed.

### Career Ladder Context

**Health System Characteristics.** Career ladders were being developed within the health systems because of demand for expanded roles for MAs within primary care clinics. Consistent with what was described in the literature review, primary care clinics reported increased pressure to provide higher quality, more coordinated care for patients while controlling costs.<sup>5,34</sup> Participating clinics also expressed interest in using MAs to reduce administrative burden on providers, particularly related to electronic health record (EHR) documentation, to help buffer them from burnout,<sup>35</sup> which was largely successful. A provider at case #4 stated, "If you have two well-trained [lead MAs], 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 all the minutiae that really doesn't require an M.D. degree to do. It just it frees me up to be more of a doctor."

Given alignment of MA role expansion with institutional priorities, the health systems within our sample all reported strong leadership support for expanding the roles of MAs and creating career ladders. Further, because participating primary care clinics were all part of large health systems, the career ladder programs were well-resourced and supported by robust human resource (HR) and workforce development infrastructure, which we will discuss below. As described by a senior administrator as case #2, "We have adopted a much more planful [HR] development approach based on business needs. We look at where our business is going, the key jobs, and then we build training programs and initiatives that help us advance talent agenda in those particular areas more quickly."

In our sample of health care organizations, the expanded roles within career ladders for MAs focused on the following four clinical and educational areas: *panel management and care coordination* (e.g., pre- and post-visit planning with patient), *EHR documentation support* (e.g., using templates and protocols within EHR to enter patient information and queue-up orders, diagnostics, labs), *supporting delivery of person-centered care* (e.g., building relationships with patients by increasing face-to-face time during the encounter), and *supervision and training* (e.g., directing clinical tasks and work organization, or teaching and documenting skills of other MAs across the organization). A summary of expanded MA job tasks and responsibilities is included in Table 1. Below we discuss how the health systems trained workers to take on these new roles and how they incorporated these skills into the career ladders for MAs.

**Table 1 Expanded roles for medical assistants within primary care**

Role	Description
Panel management and care coordination	<ul style="list-style-type: none"> <li>•Pre-visit chart review (e.g., patient goals for visit; follow-up on last visit regarding labs, meds, diagnostics; queue up any preventive care based on protocols — vaccines, screenings, tests; medication reconciliation)</li> <li>•Panel management (EHR review) regarding reminders and identification of preventive help care gaps</li> <li>•Post-visit planning with patient (e.g., scheduling follow-up appointments with specialty referrals; medication reconciliation; self-care goals and coaching)</li> <li>•Linking centralized scheduling and triage functions with clinic contexts and patient needs</li> </ul>
EHR documentation support	<ul style="list-style-type: none"> <li>•Entering patient histories for provider based on templates</li> <li>•Documenting patient complaint and vitals</li> <li>•Queuing-up preventive health orders based on protocols</li> <li>•Queuing-up diagnostics, labs, procedure reports, etc. for encounter with provider</li> <li>•Drafting notes in encounter for provider review based on templates</li> <li>•Scrubbing inboxes to highlight messages that need attention, remove duplicate messages, and act on items that are within MA scope of practice</li> </ul>
Supporting delivery of person-centered care	<ul style="list-style-type: none"> <li>•Building relationship with patient through pre-visit, encounter, and post-visit work</li> <li>•Serving as a knowledgeable source about the visit to help patients get information or reminders they need regarding encounter</li> <li>•Increasing face-to-face time within the encounter (MA and provider)</li> <li>•Empowering patient to meet visit goals and implement chronic disease self-management</li> </ul>
Supervision and training	<ul style="list-style-type: none"> <li>•Clinical — where Lead MAs direct the clinical tasks and work organization of less experienced MAs (e.g., site coordinators)</li> <li>•Educational — where Lead MAs are used centrally (or within clinics) to teach and document competencies for other MAs on needed skills for the above roles (e.g., MA educators)</li> </ul>

The educational strategies used by the sites focused on two goals: (1) standardizing basic skills of MAs at different levels of the career ladder and supporting formal MA certification and (2) systematically introducing new skills for MAs to learn and perform in primary care clinics. Consistent with the nationally representative data presented above, MAs employed within the health systems had a variety of different educational backgrounds from on-the-job training to formal training in a clinical program and national certification.

Consequently, a goal of the MA role redesign projects and career ladders was to establish standardized basic skills training protocols for incumbent workers and execute competency-based orientation for new hires. For example, all sites conducted basic skills training for all MAs by hosting workshops on-site at their primary care practices during times that were convenient for most MAs to attend (e.g., lunch hour). At cases #2 and #4, one or two MAs at each practice were then designated as staff champions; in their capacity as coaches, these MAs worked with other MAs to make sure that they were implementing the skills acquired through the new training. This skills standardization was supported part-time by a Lead MA within a practice and full-time by teams of educators that ran skills labs in a centralized location.

Second, the career ladder programs across all sites included the introduction of new skills and responsibilities; some examples include 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. All of the sites undertook substantial training within primary care practices to prepare MAs to take on these additional responsibilities. For example, site #4 used a four-part strategy for training MAs for a new “Encounter Specialist” role, including twelve hours of in-person didactic training and coaching for MAs on the EHR system, loading templates, and getting comfortable with documentation, as well as coaching for providers in how to use MAs in the expanded role.

The standardization of training and introduction of new skills helped the MAs to provide more consistent care across the primary care clinics. For example, a nurse manager at case

## Career Ladder Infrastructure

In this section, we discuss the policies and practices that the sites utilized to develop career ladders. We focus on three areas of career ladder infrastructure: (1) educational training and support, (2) credentials and certification, and (3) differentiated job levels.

**Educational Training and Support.** To help MAs gain additional skills and climb the MA career ladders that had been implemented, the sample sites used a number of educational strategies, which are summarized in Table 2.

**Table 2 Training strategies used in MA career ladders**

Educational strategy	Case #1	Case #2	Case #3	Case #4
Use in-house curriculum	x	x	x	x
One-on-one practice site skills checks		x	x	x
Lengthened onboarding		x	x	
Expanded learning management system resources for primary care	x	x	x	x
Lead MA as preceptor/trainer		x	x	x
Incentives for formal external MA training		x	x	
Require certification or registration upon hire				x
Support for certification testing process		x	x	

Source: Care Team Redesign Evaluation

#2 explained: “The health coaching module helped provide MAs with perspective. One challenge we have is that even though we have a promotora on site, referrals weren’t always going through due to lack of MA understanding of the value promotoras have and the benefits of health education for patients. The training helped MAs become advocates for that.” MAs also reported that the training and structure of their new roles gave them new confidence and competence when interacting with patients. For example, an MA at case #4 said, “Being with the one patient throughout [the visit], the patient knows that this is my MA and has a sense that they can trust me with whatever problems they reveal to the doctor.” This trust “assures the patient that they are getting the right referrals, getting exactly what they need, the right medications,” leading to “more adequate care.”

**Certification and Credentialing.** The sites in our sample all required that MAs take a national certification exam in order to be eligible for promotion. The sites promoted and supported certification by covering the costs of the exam and providing on-site training aimed to help prepare them for the exam. One health system (case #2) required that MAs *all* become certified, regardless of job level; to support workers in becoming certified, the site provided on-site tutoring for the exam, as well as covering the costs of taking the exam. The certification acted as part of the skill standardization process, ensuring that MAs that became certified had a base level of skills and knowledge. The certification process also formalized the skill level of workers, allowing workers to demonstrate their skill level to other units within the health system or other employers, and indeed, the sites did struggle with their highly trained MAs being poached by other health care employers.

**Differentiated Job Levels.** The sites in our sample implemented competency-based career ladders for MAs to climb as they gained additional skills and responsibilities. A description of the levels of the career ladder, along with the number MAs at each level and corresponding earnings by site, is shown in Table 3. The first level of MAs — the MA 1 position — was typically for new hires; often new hires did not have formal MA training, especially if they came from a different division of the health system. The next level on the career ladder — the MA 2 level — was for MAs who had taken an exam to become registered or certified. They typically also had to have additional training, either within the health system or through an educational institution. At the beginning of the grant period, all of the sites had MA 1 and MA 2 job levels in place. Throughout the grant period, they expanded their job levels to include MA 3 and MA 4, described below.

The third level in the career ladders (MA 3) typically involved MAs moving into a specialist role, such as an “Encounter Specialist” role or another lead position. The Encounter Specialist position, developed in case #4, substantially expanded the role of medical assistants in primary care

practices to include a broader range of responsibilities, including pre- and post-work for each patient visit. Finally, a fourth level in the career ladders developed by the health systems was for MAs that took on significant supervisory or educational roles within the health system (MA 4). Within primary care clinics, MAs would be promoted to a clinic manager role, where they were in charge of overseeing the other MAs in the clinic, managing the schedule, and overseeing MA performance within the clinic. MAs in educational roles often moved into centralized positions within the health system where they were part of a team that was charged with training MAs and other frontline staff across primary care clinics.

## Career Ladder Outcomes

In this section, we discuss the worker outcomes as a result of participating in the career ladder program. We focus on both the frequency of promotion of MAs within each health system and the increases in compensation that MAs received when they were promoted.

**Worker Outcomes.** All of the sites were able to successfully create and implement career ladders for MAs in the primary care clinics and training practices to support advancement up the career ladder. However, in terms of evaluating rewards to workers, it is important to measure how many MAs were promoted during the MA redesign projects and the compensation they received for participation and completion. Both yearly earnings by MA level and the number of MAs promoted to each level are shown in Table 3. There was variation in the number of MAs employed at each health system, ranging from 132 (case #3) to 332 (case #1). Case #4 promoted the highest number of MAs, moving 150 MAs up to level 3 and 30 MAs up to level #4. Other cases were more modest in their results; for example, case #3 employed 132 MAs, promoted 24 to level 3, and four MAs to level 4.

Finally, and perhaps most importantly, we examined wage progression of MAs through the career ladders at each health system in our sample. There was significant variation in wage growth across sites. In interviews, key informants described setting MA 1 and MA 2 salaries to be competitive for their region, which is reflected in Table 3. Variation in MA 4 salaries can be attributed to differences in planned scope of work for MA 4s. For example, in case #1, MA 4s entailed a shift to a managerial/administrative role, whereas in case #4, MA 4s maintained their regular clinic positions but assumed additional responsibilities such as additional EHR responsibilities and pre- and post-visit work.

Medical assistants at case #1 were able to increase their wages from \$36,462 as an MA 1 to \$51,002 as an MA 4. This is a wage increase of around \$14,500 per year (24.5%), which is substantial, but Table 3 shows that only six MAs were able to move to MA 4 during the grant period, so this substantial wage increase was not available to a large number of MAs. The wage

Table 3 Income progression of medical assistants through career ladder

	Case #1			Case #2			Case #3			Case #4		
	N	Income	% increase	N	Income	% increase	N	Income	% increase	N	Income	% increase
MA 1 Entry-level position for those without prior experience working as a MA, e.g., a staff member switching over from registration, phlebotomy, or a CNA position at the hospital. May or may not be certified.	–	N/A	–	91	\$32,502	–	44	\$30,097	–	–	N/A	–
MA 2 Registered or certified MAs or for those who have completed additional hours of training and demonstrated specified skills.	106	\$36,462	–	21	\$35,113	8.0%	60	\$33,696	12.0%	16	\$33,173	–
MA 3 Has additional hours of didactic training and on-the-job training in support roles such as encounter specialist/Lead MA.	17	\$40,976	12.4%	10	\$38,608	10.0%	24	\$37,690	11.9%	150	\$34,997	5.5%
MA 4 Lead peer educators, preceptors and serve in some advanced administrative or clinical roles.	6	\$51,002	24.5%	28	\$45,698	18.4%	4	\$39,998	6.1%	30	\$36,922	5.7%
Mean MA wages in metropolitan area		\$36,053			\$35,168			\$33,878			\$32,410	
Total # of MAs	332			152			132			196		

Source: Care Team Redesign Evaluation

Notes: The number of MAs and wages reflect the status at each case at the end of the grant period. The mean MA wages in metropolitan area are from the Occupational Employment Statistics (OES) data provided by the US Bureau of Labor Statistics. They have been inflation-adjusted to 2017 dollars using the Consumer Price Index (CPI)

increases available to MAs in case #2 were also quite substantial, with an average wage change of about \$13,000 between MA 1 and MA 4. In case #2, we also see a much higher rate of promotion among MAs (see Table 3), suggesting that promotion is accessible to a large number of MAs. The average wage increase for MAs in case #3 between MA 1 and MA 4 was about \$10,000 per year, but again, Table 3 shows that the number of MAs promoted to MA 4 was limited to four MAs. However, a much larger number of MAs were promoted to MA 3<sup>37</sup>, where they still earned wage increases that were about \$7500 more than MA 1. Finally, the wage increases in case #4 were much more modest, resulting in only about a \$4000 wage increase for MAs as they progressed to MA 4 (with around a 5% wage increase in between each level). Notably, a number of providers at this site commented that MAs needed to be compensated at a higher rate to reflect their new skill levels and retain workers trained for the role.

Clinic administrators recognized the importance of the wage increases and career opportunities for MAs. For example, one nurse manager at case #2 explained, “Medical assistant is an entry-level position. These are vulnerable positions

because sometimes that workforce, there aren’t any other professionals in their families. They come in a little bit insecure, in need of mentorship, in need of direction. This [career ladder] allows them to enhance their skills, build their confidence. There’s a lot more value than just at the surface level. It helps them gain much more: the ability to come back and lead, be more confident in their roles and how they present themselves, and in interactions with patients.” A clinic manager at case #3 said, “I think [the MA levelling] has been really good for our staff. I think it’s given them some motivation and some incentive to continue and to learn more. I think definitely they like the financial piece of it for them. I mean obviously that’s a great motivator, and I think that the pay rate is a little bit more equitable and fair for them now.”

## DISCUSSION

The purpose of this study was to evaluate whether career ladders for MAs in primary care clinics were effective in

improving the wages and career opportunities of MAs. All of the MA career ladders in this study aimed to expand the job responsibilities and use of MAs in primary care, training MAs in advanced EHR work, panel management, and patient care coordination. There is a significant gap between the current use of MAs in many primary care practices and the potential use of MAs in the primary care setting. Past papers have argued that increased staffing of MAs and other paraprofessional workers can increase access in primary care, improve patient satisfaction, and reduce or control costs.<sup>1,6,9,34</sup> Thus, the expanded use of MAs in primary care clinics may be a powerful tool for expanding primary care services and access while also controlling costs. This study builds on past research on the expansion of MA roles in primary care by focusing directly on outcomes for workers, rather than patient or organizational outcomes. While a number of studies have discussed new roles for MAs,<sup>1,33</sup> this is the first study to include salary and promotion outcomes.

We found that the MA career ladders developed within the health systems included in the sample were able to provide substantial increases in compensation for MAs who were able to gain additional skills and responsibilities. At three out of the four sites, the increase in yearly earnings between the MA 1 level and the MA 4 level was over \$10,000 per year, which is a meaningful increase in earnings for these direct workers.<sup>36</sup> The average increase in wages for each level of advancement across the sites was around 12%. Our results provide a positive example of the use of career ladders in a health care setting, where direct workers are given the opportunity to substantially increase their earnings through additional training and responsibility. Our findings are consistent with past research on career ladders for direct care workers and other health care workers without a college degree that has found that career ladders can create a pathway for meaningful wage increases and upward mobility.<sup>37</sup> However, some research on workforce development within health care organizations suggests that career ladders for low-level health care workers often have a limited impact on worker wages and worker career mobility,<sup>29</sup> and other research suggests career ladders and workforce development can be exploitive of marginal low-wage workers.<sup>38</sup>

Our findings that suggest that career ladders may be one effective mechanism for increasing wages and career opportunities for medical assistants, which has important implications for gender and racial equity in the health care workforce. As described earlier, the medical assistant occupation is heavily female-dominated, and women of color are overrepresented. Improving racial-ethnic equity in wages in the health care system requires that health care organizations provide opportunities for these women to increase their wages,<sup>25</sup> and the case studies in this project demonstrated significant upward mobility for these workers. Career ladders can also be important tools for retaining experienced and highly skilled MAs, both within primary clinics and within the health system more broadly. However, when career ladders do not provide

adequate increases in compensation, it can lead to worker burnout and contribute to frustration and turnover.<sup>29</sup>

A limitation of career ladders like those in the current study is that the training and credential are limited to the MA occupation. In the health care sector, credentials have historically been required of mid-level and professional health care workers (e.g., registered nurses and physicians), but credentials are increasingly required of low-level and paraprofessional employees in health care organizations.<sup>39,40</sup> Unfortunately, most credentials within the health care industry do not build on each other in terms of advancing one's career (e.g., earning a certificate to become a certified nursing assistant does not contribute credit towards earning a nursing degree). This lack of "stackable" credentials and intra-occupational training means that the training and credentials that MAs obtain do not help them advance beyond an MA career ladder, a finding that is consistent with criticism of career ladders for low-wage workers in the health care sector.<sup>29,38</sup> There is a significant need for research on the impact of career ladders and credentialing on the job quality and careers of lower-level health care workers.

## CONCLUSION

The medical assistant occupation is a fast-growing occupation in the health system, but these jobs are plagued by low wages and few opportunities for advancement. Our findings suggest that thoughtful planning and forward-thinking strategies such as investing in career ladders can potentially improve MA job quality while also addressing issues of equity, efficiency, and quality in the health care sector.

---

**Corresponding Author:** Janette Dill, PhD; Health Policy & Management, School of Public Health, The University of Minnesota, Minneapolis, MN 55455, USA (e-mail: dill0221@umn.edu).

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s11606-021-06814-5>.

## REFERENCES

1. Chapman S, Blash L. New Roles for Medical Assistants in Innovative Primary Care Practices. *Health Serv Res* 2017;52:383-406. doi:<https://doi.org/10.1111/1475-6773.12602>
2. Sheridan B, Chien AT, Peters AS, Rosenthal M, Brooks JV, Singer SJ. Team-Based Primary Care: The Medical Assistant Perspective. *Acad Manag Proc* 2016;2016(1):15265. doi:<https://doi.org/10.5465/AMBPP.2016.15265abstract>
3. Hsu J, Price M, Vogeli C, et al. Bending The Spending Curve By Altering Care Delivery Patterns: The Role Of Care Management Within A Pioneer ACO. *Health Aff* 2017;36(5):876-884. doi:<https://doi.org/10.1377/hlthaff.2016.0922>
4. Reid RJ, Coleman K, Johnson EA, et al. The Group Health Medical Home At Year Two: Cost Savings, Higher Patient Satisfaction, And Less

- Burnout For Providers. *Health Aff* 2010;29(5):835-843. doi:<https://doi.org/10.1377/hlthaff.2010.0158>
5. **Alexander JA, Markovitz AR, Paustian ML, et al.** Implementation of Patient-Centered Medical Homes in Adult Primary Care Practices. *Med Care Res Rev* 2015;72(4):438-467. doi:<https://doi.org/10.1177/1077558715579862>
  6. **Day J, Scammon DL, Kim J, et al.** Quality, Satisfaction, and Financial Efficiency Associated With Elements of Primary Care Practice Transformation: Preliminary Findings. *Ann Fam Med*. 2013;11(Suppl\_1):S50-S59. doi:<https://doi.org/10.1370/afm.1475>
  7. **Neuwirth E (Estee) B, Schmittziel JA, Tallman K, Bellows J.** Understanding Panel Management: A Comparative Study of an Emerging Approach to Population Care. *Permanente J* 2007;11(3):12-20. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3057714/>
  8. **Bodenheimer T, Sinsky C.** From Triple to Quadruple Aim: Care of the Patient Requires Care of the Provider. *Ann Fam Med* 2014;12(6):573-576. doi:<https://doi.org/10.1370/afm.1713>
  9. **Bodenheimer T, Pham HH.** Primary Care: Current Problems And Proposed Solutions. *Health Aff* 2010;29(5):799-805. doi:<https://doi.org/10.1377/hlthaff.2010.0026>
  10. **Kaplan HC, Brady PW, Dritz MC, et al.** The Influence of Context on Quality Improvement Success in Health Care: A Systematic Review of the Literature: Quality Improvement Success in Health Care. *Milbank Q* 2010;88(4):500-559. doi:<https://doi.org/10.1111/j.1468-0009.2010.00611.x>
  11. **Sinsky CA, Willard-Grace R, Schutzbank AM, Sinsky TA, Margolius D, Bodenheimer T.** In search of joy in practice: a report of 23 high-functioning primary care practices. *Ann Fam Med* 2013;11(3):272-278.
  12. **Stout S, Weeg S.** The Practice Perspective on Transformation: Experience and Learning from the Frontlines. *Med Care* 2014;52:S23-S25. doi:<https://doi.org/10.1097/MLR.0000000000000239>
  13. **True G, Stewart GL, Lampman M, Pelak M, Solimeo SL.** Teamwork and delegation in medical homes: primary care staff perspectives in the Veterans Health Administration. *J Gen Intern Med* 2014;29(2):632-639.
  14. **Green F.** *Demanding Work: The Paradox of Job Quality in the Affluent Economy*. Princeton University Press; 2006.
  15. **Handel MJ.** Trends in perceived job quality, 1989 to 1998. *Work Occup* 2005;32(1):66-94.
  16. **McGovern P, Smeaton D, Hill S.** Bad jobs in Britain: Nonstandard employment and job quality. *Work Occup* 2004;31(2):225-249.
  17. **Kalleberg AL.** *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s-2000s*. Russell Sage Foundation; 2011.
  18. Bureau of Labor Statistics. *Medical Assistants : Occupational Outlook Handbook*: U.S. Bureau of Labor Statistics. Published 2020. Accessed September 17, 2020. <https://www.bls.gov/ooh/healthcare/medical-assistants.htm>.
  19. **Skillman SM, Dahal A, Frogner BK, Andrilla CHA.** Frontline Workers' Career Pathways: A Detailed Look at Washington State's Medical Assistant Workforce. *Medical Care Research and Review*. Published online 2018;1077558718812950.
  20. **Dill J, Morgan JC, Marshall VW.** Contingency, employment intentions, and retention of vulnerable low-wage workers: an examination of nursing assistants in nursing homes. *The Gerontologist* 2012;53(2):222-234.
  21. **Morgan JC, Dill J, Kalleberg AL.** The quality of healthcare jobs: can intrinsic rewards compensate for low extrinsic rewards? *Work Employ Soc* 2013;27(5):802-822.
  22. **Temple A, Dobbs D, Anel R.** Exploring correlates of turnover among nursing assistants in the National Nursing Home Survey. *Health Care Manag Rev* 2009;34(2):182-190.
  23. **Budig MJ, Hodges MJ, England P.** Wages of Nurturant and Reproductive Care Workers: Individual and Job Characteristics, Occupational Closure, and Wage-Equalizing Institutions. *Social Problems*. Published online 2018.
  24. **Ruggles S, Genadek K, Goeken R, Grover J, Sobek M.** *Integrated Public Use Microdata Series: Version 7.0*. Published online 2017. doi:<https://doi.org/10.18128/D010.V7.0>
  25. **Dill J, Akosionu O, Karbeah J, Henning-Smith C.** Addressing Systemic Racial Inequity In The Health Care Workforce. *Health Affairs Blog*. Published 2020. Accessed September 17, 2020. <https://www.healthaffairs.org/doi/10.1377/hblog20200908.133196/full/>.
  26. **Dill J, Chuang E, Morgan JC.** Healthcare organization-education partnerships and career ladder programs for health care workers. *Soc Sci Med* 2014;122:63-71.
  27. **Garman AN, McAlearney AS, Harrison MI, Song PH, McHugh M.** High-performance work systems in health care management, part 1: development of an evidence-informed model. *Health Care Manag Rev* 2011;36(3):201-213.
  28. **Weiner BJ, Belden CM, Bergmire DM, Johnston M.** The meaning and measurement of implementation climate. *Implement Sci* 2011;6(1):78.
  29. **Dill J, Morgan JC.** Employability among low-skill workers: Organizational expectations and practices in the US health care sector. *Hum Relat* 2018;71(7):1001-1022.
  30. **Fitzgerald J.** *Moving up in the New Economy: Career Ladders for US Workers*. Cornell University Press; 2006.
  31. **Chuang E, Dill J, Morgan JC, Konrad TR.** A configurational approach to the relationship between high-performance work practices and frontline health care worker outcomes. *Health Serv Res* 2012;47(4):1460-1481.
  32. **Dill J, Morgan JC, Weiner B.** Frontline health care workers and perceived career mobility: do high-performance work practices make a difference? *Health Care Manag Rev* 2014;39(4):318-328.
  33. **Bodenheimer T, Willard-Grace R, Ghorob A.** Expanding the Roles of Medical Assistants: Who Does What in Primary Care? *JAMA Intern Med* 2014;174(7):1025. doi:<https://doi.org/10.1001/jamainternmed.2014.1319>
  34. **Bodenheimer T, Smith M.** Primary Care: Proposed Solutions To The Physician Shortage Without Training More Physicians. *Health Aff* 2013;32(11):1881-1886. doi:<https://doi.org/10.1377/hlthaff.2013.0234>
  35. **Gawande A.** Why doctors hate their computers. *New Yorker*. Published online 2018.
  36. **Himmelstein KE, Venkataramani AS.** Economic Vulnerability Among US Female Health Care Workers: Potential Impact of a \$15-per-Hour Minimum Wage. *Am J Public Health* 2019;109(2):198-205.
  37. **Dill J, Morgan JC, Chuang E, Mingo C.** Redesigning the Role of Medical Assistants in Primary Care: Challenges and Strategies During Implementation. *Med Care Res Rev*. Published online August 14, 2019;107755871986914. doi:<https://doi.org/10.1177/1077558719869143>
  38. **Ducey A.** *Never Good Enough: Health Care Workers and the False Promise of Job Training*. Cornell University Press; 2009.
  39. **Kleiner MM, Krueger AB.** The prevalence and effects of occupational licensing. *Br J Ind Relat* 2010;48(4):676-687.
  40. **Nancarrow SA, Borthwick AM.** Dynamic professional boundaries in the healthcare workforce. *Social Health Illness* 2005;27(7):897-919.

**Publisher's Note:** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.