Medical Assistants' Telehealth Roles and Skills in Primary Care During the COVID-19 Pandemic

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CONTENTS

Key Findings..... 1
Introduction..... 2
Methods..... 3
Results..... 4
Discussion.....10
References.....12
Authors.....14
Funding..... 14
Acknowledgments.....14
Suggested Citation.....14
Appendix A..... 15
Appendix B..... 18

KEY FINDINGS

This study examined the roles of medical assistants (MAs) in the use of telehealth to deliver primary care during the COVID-19 pandemic. Through reviews of the literature and interviews with key informants, the study identified the skills and roles of MAs that supported rapid increase in the use of telehealth, policies and practices supporting these roles and skills, and longer-term needs to improve and maintain these skills and competencies. Key findings from the literature and interviews included the following:

- Compared with other occupations, there were fewer mentions in the literature of MA-specific roles associated with delivering telehealth.
- Pandemic emergency rules expanding telehealth payment and preserving primary care services enabled many of MAs' roles to transfer from in-person to virtual and provided MAs with opportunities to rapidly take on new roles and increased responsibility.
- How and the extent to which MAs' telehealth roles were implemented during the pandemic depended greatly on the size and location of the clinic facilities, and the variety and consistency of staffing at the clinics.
- MAs were generally not well-prepared by their education programs in specific telehealth skills and most of their telehealth training took place on-the-job.
- Informants described the benefit of providing MAs with more technical training and education, with a focus on telehealth basics and general technology acumen.

MAs will continue to be integral to both in-person and virtual health care teams and more roles for MAs in primary care are likely to emerge in the future. When MAs were available to telehealth teams during the pandemic, their roles in promoting clinic efficiency and care quality were recognized. Meeting the current and growing demand for MAs across the US, however, requires increasing the supply of MAs. Without consistent availability of an MA workforce, and if turnover remains high, the path to expanded use of telehealth in primary care may be uneven.

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INTRODUCTION

The use of technology to provide health care services from a distance through telehealth* was increasing prior to the COVID-19 emergency, but its use skyrocketed within weeks of the onset of the pandemic.[1] The public health emergency's stay-at-home orders, social distancing and infection control protocols greatly limited in-person health care clinic visits, including those for primary care. Yet patients needed a way to access primary care services, whether to continue their ongoing care or address physical and behavioral health conditions that were caused or exacerbated by the pandemic.[2,3,4]

To address patients' ongoing need for primary care and clinics' needs for revenue, many insurers began reimbursing for telehealth at or near office-based visit rates and some of the policy limitations to its use were relaxed in response to the crisis, escalating telehealth use.[5,6] Video or telephone technology was used by 13% of members of the American Association of Family Physicians (AAFP) prior to the pandemic, increasing to 94% by late Spring 2020.[7] As further example of the rapid growth in the use of telehealth, Providence health system in Washington state reported in May 2020 that telehealth use increased from 700 video visits a month to 70,000 a week at the onset of the pandemic, with the number of engaged providers escalating from 50 to 7,000 in seven business days.[8] At Duke University School of Medicine, telehealth visits increased from less than 1% of total visits to 70% within a four-week period.[9]

Such a rapid shift in health care delivery from in-person to telehealth visits required the workforce to quickly adapt to new workflows. Multiple types of workers are involved in implementing telehealth technology, such as using the technology to provide clinical care or providing support services to connect patients and providers in virtual interactions. Workers faced reassignment or changes in their roles and skills to deliver primary care via telehealth in order to keep up with the increasing demand from pandemic-imposed limitations to face-to-face interactions, as well as to respond to a world more accepting of, and expecting, telehealth care options.

Given the growing body of literature focused on the experiences of the physician and nursing workforce in the use of telehealth in primary care, this study focused on the allied health workforce in primary care, primarily medical assistants (MAs), who play an important role in the delivery of telehealth. This study examined how MAs have adapted in a work environment that faced fewer in-person visits and more use of telehealth since the onset of the COVID-19 pandemic. Objectives were to identify:

1) the skills and roles of MAs that have best supported the transition to greater use of telehealth,
2) policies and practices supporting these roles and skills, and
3) longer-term needs to improve and maintain these skills and competencies in the MA workforce.

We present policy and practice recommendations for ongoing support of the skills and competencies needed for MAs to effectively contribute to telehealth in primary care.

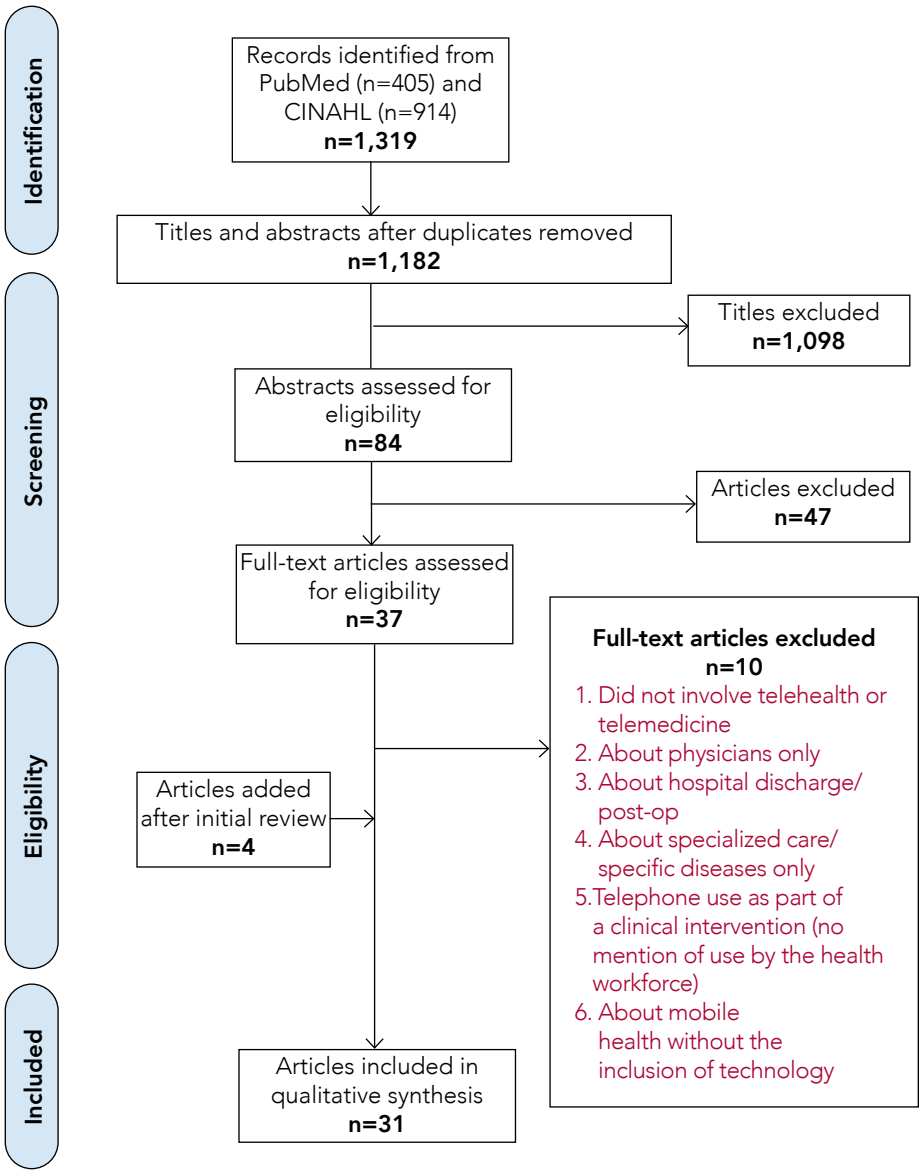
*Telehealth refers to a broad array of uses of electronic information and telecommunications technologies to provide long-distance clinical health care (commonly referred to as telemedicine), health-related education, public health and health administration.

METHODS

In this qualitative study, we conducted a review of relevant published (gray and peer-reviewed) literature on the impacts of telehealth implementation on MAs' roles in primary care and interviews with key informants knowledgeable about the workforce providing telehealth in primary care.

Our literature review methods were developed in partnership with a health services librarian. Initial targeted searches were performed in April 2021 on PubMed and CINAHL online databases (see **Appendix A** for search terms), which resulted in 1,182 titles. Articles were kept for full-text review if they occurred in a primary care or ambulatory care setting, involved discussion of the provider-patient interaction, focused on the health workforce, and included mention of non-physician occupations. Articles were eliminated if they were not about telehealth or telemedicine, if they were examining telehealth outside the US or Canada, solely addressed the physician workforce, discussed telehealth only as part of a clinical intervention or in relation to a specific disease or the delivery of specialized care, or were about telehealth use at hospital discharge. These criteria resulted in 84 articles for thorough abstract review. Thirty-seven articles were then each read by two researchers, resulting in the further elimination of ten articles, leaving 27 for inclusion in this study. Additional searches for new literature published since the initial search were performed in November 2021 and March 2023, resulting in four more articles meeting all inclusion criteria, for a total of 31 relevant articles (**Figure 1**).

Figure 1: MAs in Telehealth Literature Review



Informed by our literature review, we developed an interview guide (**Appendix B**) addressing key questions focused on the current roles of MAs in providing telehealth (pre-pandemic and changes due to the pandemic), the role of the MA on the broader telehealth team, specific telehealth-related tasks done by MAs pre-, mid-, and post-telehealth visit, and education/preparation (if any) of MAs to fulfill these roles and tasks.

We identified key informants to invite for interview from among national and select state primary care provider organizations, government and private national telehealth advocacy organizations, and health care

organizations and systems of varying size and geographic distribution. Key informants were selected, to the extent relevant, based on a range of geographic regions (states, rural/urban) and organizational structure (independent practices, system-affiliated, safety net). We interviewed a total of ten key informants representing MA and telehealth education, MA and/or telehealth professional organizations, as well as practice-based individuals involved in the implementation of telehealth among MAs in primary care. All interviews were conducted remotely via Zoom, audio-recorded and transcribed with participants' consent. We analyzed interview data using content analysis to code recurring themes.

This study was classified as exempt from human subjects review by the University of Washington Human Subjects Division.

RESULTS

TYPICAL PRIMARY CARE ROLES, PREPARATION AND CREDENTIALING OF MAs

MA Roles and Scope of Practice

The National Academy of Medicine 2021 Primary Care Report cites the need for high-quality team-based care as necessary for providing optimal primary care to patients, and MAs are considered an essential part of the core team, along with the patient, their family, the clinician, and other clinical support staff.[10] Typical roles for MAs in a primary care setting include preparing patients for visits, ensuring the clinician has all pertinent information on the patient, and maintaining clinic flow.[10] MAs have been found to be adaptable to other tasks and roles with additional training for content not included in their initial MA curriculum, including the use of electronic health records (EHRs) and acting as health coaches for patient education and preventive care in primary care settings.[11]

Several factors influence an MA's scope and role within primary care. MAs must work within the scope of their supervisor, typically a licensed provider such as a physician, nurse practitioner, or physician assistant, and are limited in making independent clinical assessments. An MA's supervisor is able to delegate tasks to the MA according to their level of trust in the MA's education and training. An MA's role can be enhanced by their willingness to take on new roles within the primary care practice.[12] Additional factors affecting an MA's role on the primary care team include practice culture, payment models, and scope of practice regulations.[12]

While specific legislation and regulations (or policies) governing MA practice vary by state, they need to be taken into account when considering how MAs are most effectively deployed in telehealth care. For example, a recently enacted law in Washington state addressed a limitation of existing supervision regulations by expanding supervision of an MA to include interactive audio and video technology (rather than limiting to in-person supervision) when the MA is assisting a health care practitioner in a telehealth visit.[13]

Evolving MA Roles

A survey of MAs and physicians in North Carolina highlighted expanding roles for MAs in primary care. The most common roles that surveyed physicians reported MAs could take on with proper training included those related to population health: management of patients with chronic health conditions such as diabetes, identifying patients in need of preventive screening, and EHR data extraction for managing patient panels.[12] MA roles identified by the physicians for additional development included increased involvement in documentation and scribing, and with more education, patient education and counseling. A recent pilot of a virtual training program in Washington aiming to expand and redefine the MA role showed that with this additional training, participating MAs felt more confident and prepared for providing population health management and patient education, as well as improved interprofessional collaboration within the medical care team.[14]

MA Education/Training and Certification

MA education and training programs typically range in length from six-month certificate programs to two-year associate degree

programs, and also include apprenticeships. MAs may complete their training in private, for-profit schools, or public community colleges. Registered MA apprenticeship programs may provide the required didactic education component of the apprenticeship in association with community colleges or private online education programs, or through curriculum developed and administered by the sponsor or employer.[15]

MAs are licensed in only one state, Washington, and are not required to be certified to practice in most states. Only Washington, Idaho, Connecticut, and New Jersey require MA certification; for example, in Washington MAs must be certified by one of five national certifying bodies. In these four states, MAs must attend a training program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and pass a certification examination.[16,17]

TELEHEALTH ROLES FOR MAs: BEST PRACTICES IN PRIMARY CARE

Our review of the literature resulted in relatively few mentions of MA-specific roles associated with delivering telehealth; we found more information about the telehealth roles of other occupations. Telehealth roles of physicians, nurse practitioners (APRNs), physician assistants (PAs), and nurses (RNs) were most frequently addressed, highlighting their roles in initiating and conducting the telehealth visit, consulting with specialists on behalf of the patient, and providing ongoing management of chronic conditions.[18] Telenursing, the use of electronic information and telecommunications for nurses to provide care, has been well-documented.[19] Typical telenursing interventions included consultations, follow-ups, ongoing patient surveillance via telephone, and telephone triage.[19]

Because several distinct roles and responsibilities need to be defined for a successful telehealth team, including clinical lead, administrative/operational lead, and IT lead, the AAFP recommends smaller practices to make use of the personnel at hand, which includes the use of MAs and implies individuals may fill multiple roles.[7] In a review of lessons learned by a primary care clinic that transitioned to video visits during the pandemic, "clinic staff" (presumably including MAs) were referenced as helping prepare the patient for the telehealth visit, including teaching patients how to download and use a specific app for their telehealth visits. [20]

MAs were also identified as having a role on the telehealth team in specialty settings. One study identified the MA in an orthopedic trauma clinic as having a role in visit preparation by calling patients about converting in-person visits to telehealth visits and instructing patients to obtain imaging services before the telehealth visit. In this study, MAs also scheduled follow-up visits with the patient following the completion of the initial visit.[21]

Despite little specific mention in the literature about MA roles in telehealth, there is evidence of opportunities for MAs to increase their role in this area within the scope of their skills and allowed activities.

THE INFLUENCE OF COVID-19 EMERGENCY REGULATORY AND PAYMENT POLICIES

Payment for telehealth services was critical to promoting the shift, where possible, from in-person to telehealth visits soon after the onset of the COVID-19 pandemic. Prior to this public health emergency, reimbursement for telehealth services was limited. Among its early responses to the pandemic, the Centers for Medicare & Medicaid Services (CMS) issued waivers that expanded telehealth access for Medicare beneficiaries and in facilities such as federally qualified health centers (FQHCs) and rural health clinics (RHCs).[22] As of March 2021, 40 states required insurance coverage of telemedicine, including 22 states that changed laws or policies during the pandemic to achieve that coverage.[23]

An August 2021 survey of primary care providers found that 64% of clinicians surveyed said that "[telehealth] has been key to maintaining patient access to care," owing in part to pandemic-era regulatory changes.[24] If the pre-pandemic regulations limiting payment for telehealth are restored, 41% of the surveyed clinicians reported they did not think their practices would still be able to support telehealth, and limit the new and expanded roles that have been adapted by MAs and other support staff during the pandemic. Over one-third (35%) of the survey respondents reported developing such roles in their practices to meet needs

created by the increased use of telehealth in primary care.[24]

The key informants we interviewed described the extent to which telehealth was part of an MA's role prior to the pandemic, and ways in which increased payment for telehealth expanded those roles. Pre-pandemic, telehealth visits were most often used for reaching patients in rural communities where they were distant from providers, and for the delivery of some behavioral health care, with MAs most often in the role of the primary liaison between the provider and the patient. In federally funded settings like FQHCs, RHCs, and critical access hospitals, there were restrictions to the use of telehealth pre-pandemic, many due to data privacy constraints and Medicare reimbursement limitations.[25] One informant echoed how these restrictions limited the opportunity for MAs to have a role in telehealth prior to the pandemic. Another informant mentioned the use of telehealth pre-pandemic for specialty services, describing how MAs, EMTs or nursing assistants roomed patients in local clinics, typically where their primary care provider was located, to enable them to have virtual specialty consultations. Under the new pandemic emergency rules allowing for more payment for telehealth, many of MAs' basic roles transferred from in-person to virtual, such as from in-person to virtual rooming in practices where physicians had an MA working alongside them pre-pandemic. In addition, actions to preserve access to primary care during the pandemic provided opportunities for MAs to rapidly take on new roles and/or increased responsibility for assisting with this form of care.

COMMON WORKFORCE ADAPTATIONS TO ACCOMMODATE GREATER USE OF TELEHEALTH IN PRIMARY CARE CLINICS IN RESPONSE TO COVID-19

Primary care practices had to pivot their delivery of services during the pandemic, likely leading to lasting changes. Krist et al. noted that, "as the pandemic spread, in-person care was converted to virtual care using telehealth."[4] Turning to telehealth allowed providers to maintain connections with patients and increase their capacity for care, which proved important for chronic disease management.[26]

Involvement of MAs in Specific Telehealth Tasks

As described by several key informants, a common telehealth role for MAs (although it may also be the role of front desk staff) has been to initiate the visit and ensure proper patient and provider technical connection, including ensuring the patient has the technology to participate in the visit, and more importantly, knows how to use it. Although one organization first had patients schedule their own telehealth visit through an email that linked to a web portal, they quickly realized that many patients needed assistance with this task. MAs became critical for helping patients schedule and set-up for telehealth visits (connecting to the internet, having proper lighting, a private space, etc.). The MA became integral to providing technical support in this organization. During the pandemic, clinic staff, including MAs, had to learn new skills rapidly and "people ...just added to their job-related duties as assigned. They had to. Didn't really have a choice."

By having the MA or front office staff carry out these checks ahead of the telehealth visit, both patients and providers benefit. As stated by one key informant:

> *"I think what history and what evidence is showing is that if it's a bad first time connection, they probably won't do* it *again. So by doing those checks ahead of time kind of eliminates …[the] technology [version of] 'Murphy's Law'"*

At the conclusion of the visit, the MA has a key role to "close the loop", ensuring follow-up labs and appointments are scheduled, and helping the patient know where to obtain their medications. In both smaller and larger organizations, depending on funding, many tasks were adapted to be performed virtually, including obtaining patient consent, completing pre-appointment checklists, sending handouts to the patient, and secure messaging. **Figure 2** provides a summary list of the telehealth tasks performed by MAs that key informants most commonly mentioned in interviews.

One key informant reported that one efficiency gained by MAs' use of telehealth during the pandemic was that when patient visits happened remotely, many tasks that otherwise would be fit into a clinic visit, such as functions typically completed during rooming (e.g., chart updates and taking vitals) could be completed over time. If needed, however, MAs could request that the patient come to the clinic for a "vitals only" visit to update their record. Another key informant observed that, as telehealth visits increased, there was a greater role for the MA that resulted from less time spent on-site by the patient. When patients were at a clinic, they could be handed referral paperwork such as lab or radiology orders and walk "down the hall" to get the service. Referrals require more monitoring, typically by MAs, when provided during telehealth visits.

> *"Well, [convenient patient access to referrals and diagnostic tests] doesn't happen in telehealth [provided in the home], so there has to be kind of a safety net, or checks and balances in place, and I think that's now the MA's role to close that loop."*

While the pandemic made telehealth a necessity in many situations, as one informant said, "Ideally telemedicine at home is a follow-up visit. Not a first visit."

Figure 2. Most Common Tasks Performed by MAs During Telehealth Visits Reported by Key Informants

- Scheduling of telehealth visits (initial and follow-up visits)
- Determining patient telehealth preferences and capabilities (telephone or video; adequate internet access for a video visit, etc.)
- Preparing patients for telehealth visits (equipment check, tutorial/training in the process, knows how to turn on the camera, etc.)
- Preparing provider and/or office for telehealth visits (equipment check, checking lighting, sound check, putting sign on door to not disturb, etc.)
- Scrubbing charts and/or preparing the history of present illness or patient records in advance of the telehealth visit – if not readily available via EHR
- Checking in patients for telehealth visits (verify patient identifiers, check who else is in the room, see if patients are in a position where they feel comfortable and have privacy)
- Documenting patient privacy/confidentiality/HIPAA compliance assurance for telehealth visits
- Providing patient education about taking vital sign measurements with own equipment, reporting results of vitals, etc. prior to or during the telehealth visit
- Documenting, telepresenting, scribing during the telehealth visit
- Distributing educational handouts/after-visit summaries/referral information following the telehealth visit
- Providing support to patient follow-up calls, external referrals (health navigating) after the telehealth visit

MAs' Roles in Telehealth Teams

The telehealth team described in one key informant's practice included the scheduling staff, the MA, provider, and an RN, if needed. Staff at this practice worked to replicate the in-person experience, including the handoffs between providers and staff members. While prior to the onset of Covid-19 RNs typically conducted the initial virtual encounters with the patient during telehealth visits, key informants reported that after the onset, MAs became the main staff member meeting virtually with the patient before the provider. A variety of office staff have been described as key collaborators with providers in facilitating telehealth in primary care.[24] Some key informants indicated, however, that because MAs' training supersedes that of front desk personnel and other support staff, the MA should interact first with patients, such as for intake and even telepresenting, as long as the patient will subsequently be seen by a licensed provider. As discussed below, clinic organization and staff availability influence how staff are utilized when delivering care by telehealth.

One key informant noted that there is likely significant potential for team use of telehealth beyond what most organizations can currently implement. Learning about and becoming comfortable with this new tool will take time, and much remains to be developed and implemented. For example, in integrated primary care, "a physician could be in a call with a patient and want to

bring in another clinician and go 'click click' and have them there." To achieve such goals, however, requires further refinement of telehealth protocols.

Variation in MA Telehealth Roles by Organizational Size and Structure

We learned from key informants that MAs are used in telehealth visits in different ways at different sites, depending on the size of the clinic or health system, and available staff.

> *"I see stability in large healthcare systems and academic healthcare [settings, with telehealth] staffing and tasks based on best practice. In rural frontier, critical access hospitals, rural health centers, federally qualified health clinics, I see not as much structure and more 'just get it done'."*

> *"Organizations that are larger and have more resources have the time and space to think critically and … strategically about how to deploy staff. Smaller ones have to figure out who's here and who can do what."*

Smaller organizations and practices, including some FQHCs and RHCs, typically have smaller facilities and fewer staff than clinics that are part of larger health systems. Telehealth roles developed quickly in response to pandemic demand, were adapted as needed, and may still not be highly refined or distinct. In smaller practices, many telehealth tasks may be done by other support personnel such as the front desk staff—based on who is available to fill in the gaps. This "just get it done attitude" was due in part to constrained resources; many smaller practices may not have the ability to dedicate a staff person primarily to telehealth care.

One key informant said that telehealth visits in rural clinics were not common before the pandemic, and when used were primarily for visits with specialists at sites distant from the rural clinic. For those visits, MAs in the rural clinic typically would room then obtain the patient's vital sign measurements and convey them to the provider at origination (specialist) site. During the pandemic, when telehealth visits with patients became more frequent for rural residents, the MA (or other support staff) would often room the patient in the clinic and take vitals, then make the virtual connection with the local primary care provider. Technology barriers such as limited internet bandwidth prevented much use of telehealth for visits with patients at their homes. Not having telehealth-compatible EHR systems or not being familiar with using EHR for telehealth further complicated the uptake of telehealth in rural practices. One key informant reported frequently receiving reports of "We don't know how" and "We don't have a solution built into our [EHR]" early after the pandemic onset.

It was also emphasized that in many rural areas, staffing may vary from day to day – and clinic work, including telehealth, needed to make appropriate use of whoever is on site.

> *"The big piece I stress is workflow. [It] needs to be in place and documented [with] workflow documents from A to Z... Because some days you know, maybe it is that front office person's job to do that first touch, but if they're out with an ill child, that MA is going to have to step in and do it...there's a lot of cross training [needed in] those smaller clinics."*

Key informants from larger organizations, including managed-care organizations, described ways in which the organizations have worked to maximize efficiency in the use of virtual versus in-person MA tasks. In some clinics and systems that were experiencing MA shortages, automating tasks such as rooming helped to free the MA up to perform other telehealth tasks. Larger organizations also had the capability to employ additional personnel and assign staff to more differentiated roles, including separate scheduling teams, patient services specialists or representatives, and virtual scribes.

In one larger health care organization described by a key informant, each department selected and provided training to "superusers", who included a variety of occupations such as clinicians, MAs, nurses, and occupational therapists:

"[Superusers were] whoever [the department] felt would be good at educating or doing shoulder-side assistance to the rest of the staff in the clinic. We provided the tools and they provided the training to their team. The virtual care team did step in and provide extra levels of support, if needed...The MA [had] those relationships with that clinician [and] leveraging that partnership and that relationship that they have as a team really was helpful...many of them were initially afraid to be on camera with a patient [but later recognized] I'm really very comfortable and good at it... Some were given leadership roles in their department."

In some regions where MAs are not widely available in the workforce and resources are limited, telehealth roles largely fell to the RN or front desk staff. One key informant said:

"People think [with telehealth] you don't have to have as many office staff. Well, you may need to have that many more IT staff to make it happen. The fact that we are so short on [MAs] has caused us to really just adapt and not build around that role in many instances. If we have [an] RN who can do RN and MA [roles] – we'd likely keep the RN [because we] don't want to lose the skills of the RNs. How can we do more with the same number of people or fewer."

We found that planning for and utilizing teams to provide telehealth services, and MAs' roles on those teams, was dependent on the availability of consistent staffing. The pandemic disrupted many, if not most, clinic operations, resulting in continual adaptation of protocols using the qualified staff available.

EDUCATION AND TRAINING TO ENHANCE MAs' TELEHEALTH SKILLS AND PREPAREDNESS

As primary care increasingly used telehealth, accelerated by the pandemic, the need for MAs to be trained in safe and effective telehealth use also increased. This need was not limited to MAs; enhanced clinical training for all clinicians and support staff has been recognized as important to support the longevity of telehealth in primary care.[27]

A 2021 qualitative study of the evolving role of MAs in virtual care in a single health system concluded that, "new leadership and teamwork competencies could be expanded during MA training to better support MA roles [in team-based care related to virtual care]."[28] The accrediting organization CAAHEP has recognized this by emphasizing telehealth in the current CAAHEP medical assisting program accreditation guidelines that became effective in April 2022. As part of 'Concepts of Effective Communication' accredited MA programs are required to have curriculum in which students "identify the medical assistant's role in telehealth" as well as "participate in a telehealth interaction with a patient."[29]

MAs Education/Training for Telehealth Roles

At the time of interviews for this study, key informants indicated that MAs were generally not well-prepared in specific telehealth skills by education programs, if they were prepared at all, and that telehealth training was primarily occurring on-the-job, with telehealth skills new to most MAs.

"I think there's room for more education absolutely. I think there's always opportunity to improve their comfort level with using the technology... I say [MAs] are not prepared at all [in use of telehealth], I mean just based off my knowledge of medical students and nursing students and their preparation. It's finally just starting to make it into medical and nursing curriculum."

"MAs are the expert [on telehealth] for everyone – patients, doctors – but they have no education to deal with that. [They] should have more in the curriculum – how to assess and deal with patients when they're not in the room...[such as] understanding the difference between clinic-generated vs. patient-generated vitals."

"People should be trained to use the equipment and ...the specific skills that are needed for telehealth to make that patient feel that they are being cared for just the same as they would be in person, so I think that's an important piece, that we need to add, is to really formalize that training."

Some informants noted that although most people are familiar with technology and social media tools, this experience does not always translate into using technology in a professional manner, and for integration with EHRs in a telehealth setting.

"I mean everybody can Facetime and ... [use] social media tools, ...but using [social media tools] in a professional sense and being integrated within the [EHR]...there was some learning curve there for sure."

"It's tempting to say 'you understand all that stuff' – but [many MAs] don't understand the implications of the use of technology – i.e., security, the abstract professional concept of what you do professionally with technology vs. what you do personally."

Looking to the future, key informants commented that there is need for MAs to receive more technical training and education, with a focus on telehealth basics and general technology acumen. Informants agreed that telehealth should be part of MA curriculum, be integrated throughout an MA's training, and be emphasized in onboarding of new hires. As a result, familiarity with providing virtual care would normalize and legitimize the use of telehealth as a delivery method for primary care, compatible with in-person care.

While key informants generally supported more education and training of MAs on telehealth-related skills, they had varying views about the need and practicality of standardizing education and credentialing in this area. Currently, not all MAs are educated through accredited programs, and certification is only required in a few states. There is increasing emphasis on standardizing education and training of MAs for roles in telehealth. Examples include the recent CAAHEP accreditation updates emphasizing telehealth for MA program accreditation, and the addition of integrated telemedicine training into the National Institute for Medical Assistant Advancement's (NIMAA) apprenticeship program.[29]

DISCUSSION

MAs' telehealth roles in primary care settings had been evolving prior to the pandemic, with some standards and best practices published and available for clinical sites to adopt. During the pandemic, clinics responded to the urgency to deploy alternatives to in-clinic care. There were significant barriers to widespread implementation of MAs in these roles such as limited reimbursement for telehealth and shortages and high turnover of MAs across the nation.[30]

Our interviews suggest that when available, MAs were often deployed during the pandemic as key facilitators to introduce and expand telehealth for patient care. How and the extent to which MAs' telehealth roles were implemented depended greatly on the size and location of the clinic facilities, and the variety and consistency of staffing at the clinics. Preparation of the MAs to help facilitate telehealth visits, similar to other occupations at the sites, was weak and informants generally agreed that greater integration of the skills required to support patients and clinicians during virtual clinic visits was needed in their basic education and training.

The COVID-19 pandemic demonstrated, in a highly disruptive way, that health care delivery can and will continue to change. In the words of one key informant:

"The role of the MA is going to change. No longer 100% in the office. If we could take some things off the MAs plate,

like [by implementing] automated intake, [it would give] them some time back that they desperately need. I see potential roles for them in new positions generated by the pandemic."

While not every medical care visit is suitable for telehealth, MAs will continue to be integral to both in-person as well as virtual health care teams. A study using 2016 Centers for Disease Control and Prevention's National Ambulatory Medical Care Survey (NAMCS) data found that 66% of all primary care visits required an in-person service, such as physical exams, laboratory tests, medical tests, procedures and treatments.[31] Yet when telehealth visits are appropriate, they can save time and money for patients and in many applications improve clinic efficiency. The new potential roles for MAs may include staffing and servicing remote sites where patients present for telehealth visits. MAs at those sites, perhaps with additional training and/or degrees could serve as telepresenters, take patients' vital sign measurements, as well as check blood pressure cuff and other equipment functioning. One key informant talked about MAs' potential expanded roles in settings such as nursing homes, where they might help direct nursing assistant teams and free up RN time.

For MAs to seek and be employed in these new telehealth roles would require that MA supply be increased across the nation. Demand for MAs is projected to grow at a faster pace than for most other health care jobs, while vacancies are currently high.[32] Key informants mentioned that a reason for not using MAs more in telehealth roles was simply due to having many unfilled MA positions and resistance to the tasks by some employed MAs. In the words of one informant:

"MAs' salaries are abysmal. MAs are the heartbeat of the clinics. When the pandemic started, [we] had some pushback because [the MAs] already had a lot on their plates."

A recent study of MAs' professional aspirations found that many MAs were interested in professional development opportunities, but they had concerns about the consistency of, and likelihood of appropriate compensation for, enhanced MA roles.[33] As telehealth gains more traction in ambulatory care, including in primary care, there is considerable opportunity for expanded MA roles. Addressing the MA recruitment and retention barriers that existed prior to, and were exacerbated by, the pandemic needs to be incorporated into MA career development planning.

CONCLUSIONS

Effective use of telehealth by primary care teams can only be implemented if resources are available to do so. This includes reimbursement for services that is adequate to employ a clinic team with the technical and patient-oriented skills needed, adequate technology resources such as internet accessibility, and business models that incentivize the recruitment as well as the retention of those staff, including MAs. The COVID-19 pandemic compressed the learning curve for testing telehealth implementation in primary care, and when MAs were available to telehealth teams, their roles in promoting clinic efficiency and care quality were recognized. Lessons learned from these pandemic experiences need to be incorporated into MA education and training. But without consistent availability of an MA workforce and if turnover remains high, the path to expanded use of telehealth in primary care may be uneven.

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APPENDIX A: LITERATURE REVIEW SEARCH STRATEGY

Search term strategy applied to identify relevant published studies online databases for PubMed (https://pubmed.ncbi.nlm.nih.gov/) and CINAHL (https://www.ebsco.com/products/research-databases/cinahl-complete)

(

MH("Telehealth" OR "Telemedicine" OR "Telepathology" OR "Teleradiology" OR "Telerehabilitation" OR "Telenursing" OR "Telephone+" OR "Text Messaging") OR

TI(telehealth OR tele-health OR telemedicine OR tele-medicine OR ehealth OR e-health OR "mobile health" OR mhealth OR "video consult*" OR "remote consult*" OR e-consult* OR econsult* OR Televisit* OR "Virtual visit*" OR "Virtual room*" OR "Video visit*" OR "Telephone call*" OR "phone call*" OR "Secure messaging" OR eVisit* OR "Remote patient monitoring") OR

AB(telehealth OR tele-health OR telemedicine OR tele-medicine OR ehealth OR e-health OR "mobile health" OR mhealth OR "video consult*" OR "remote consult*" OR e-consult* OR econsult* OR Televisit* OR "Virtual visit*" OR "Virtual room*" OR "Video visit*" OR "Telephone call*" OR "phone call*" OR "Secure messaging" OR eVisit* OR "Remote patient monitoring")

)

AND

(

MH("Nursing Manpower+" OR "Allied Health Personnel+" OR "Administrative Personnel+" OR "Nursing as a Profession+") OR

TI("Medical assistant*" OR "office staff" OR "support staff" OR "administrative staff" OR "practice staff" OR LPN OR LPNs OR RN OR RNs OR "licensed practical nurse*" OR "registered nurse*" OR "licensed vocational nurse*" OR "Allied health" OR "advanced practice nurs*" OR "nurse practitioner*" OR "physician assistant*" OR "community health worker*" OR "community health aide*" OR "community health officer*" OR "health auxiliar*" OR "medical auxiliar*" OR Nurs*) OR

AB("Medical assistant*" OR "office staff" OR "support staff" OR "administrative staff" OR "practice staff" OR LPN OR LPNs OR RN OR RNs OR "licensed practical nurse*" OR "registered nurse*" OR "licensed vocational nurse*" OR "Allied health" OR "advanced practice nurs*" OR "nurse practitioner*" OR "physician assistant*" OR "community health worker*" OR "community health aide*" OR "community health officer*" OR "health auxiliar*" OR "medical auxiliar*" OR Nurs*) OR

JN("Medical assistant*" OR "office staff" OR "support staff" OR "administrative staff" OR "practice staff" OR LPN OR LPNs OR RN OR RNs OR "licensed practical nurse*" OR "registered nurse*" OR "licensed vocational nurse*" OR "Allied health" OR "advanced practice nurs*" OR "nurse practitioner*" OR "physician assistant*" OR "community health worker*" OR "community health aide*" OR "community health officer*" OR "health auxiliar*" OR "medical auxiliar*" OR Nurs*)

)

AND

(

MH("Primary Health Care" OR "Family Practice" OR "Ambulatory Care" OR "Community Health Nursing+" OR "Family Nursing") OR

TI("Primary care" OR "Outpatient care" OR "Ambulatory care" OR "primary health care" OR "primary healthcare" OR "primary care" OR "general practice" OR "general practise" OR "family practice") OR

AB("Primary care" OR "Outpatient care" OR "Ambulatory care" OR "primary health care" OR "primary healthcare" OR

"primary care" OR "general practice" OR "general practise" OR "family practice")

)

AND

(

(MH "United States+") OR

("united states" OR usa OR u.s.a. OR Appalachia* OR "great lakes" OR mid-atlantic-state* OR mid-atlantic-region* OR middle-atlantic-state* OR middle-atlantic-region* OR midwestern-us* OR midwestern-u.s* OR Midwestern-state* OR Midwest-state* OR Midwest-us* OR Midwest-u.s* OR "great plains" OR heartland OR "new england" OR northeastern-us* OR northeastern-u.s* OR northeastern-state* OR northeast-state* OR northeast-us* OR northeast-u.s* OR "pacific northwest" OR northwestern-us* OR northwestern-u.s* OR northwest-u.s* OR northwest-us* OR northwestern-state* OR northwest-state* OR pacific-state* OR southeast-state* OR southeastern-state* OR southeast-region OR southeastern-region OR southeast-us* OR southeastern-us* OR southeast-u.s* OR southeastern-u.s* OR southern-state* OR southern-us* OR southern-u.s* OR southwest-state* OR southwestern-state* OR southwest-us* OR southwestern-us* OR southwest-u.s* OR southwestern-u.s* OR "deep south" OR "black belt" OR "rust belt" OR "district of Columbia" OR "Washington dc" OR Washington-d.c. OR Alabama OR OR Alaska OR Arizona OR Arkansas OR "little rock" OR California OR "los angeles" OR "san diego" OR "san Francisco" OR Colorado OR Connecticut OR Delaware OR Florida OR Gainesville OR Jacksonville OR Tampa OR Tallahassee OR Georgia OR Atlanta OR Hawaii OR Hawai'i OR Honolulu OR Idaho OR Illinois OR Chicago OR Indiana OR Indianapolis OR "West Lafayette" OR Iowa OR Kansas OR Wichita OR Kentucky OR Louisiana OR "new Orleans" OR "baton rouge" OR Shreveport OR Maine OR Orono OR Maryland OR "johns Hopkins" OR Massachusetts OR Boston OR Harvard OR Michigan OR Detroit OR "ann arbor" OR "east lansing" OR Minnesota OR Minneapolis OR Rochester OR Mississippi OR Missouri OR Montana OR Missoula OR Nebraska OR Nevada OR "Las Vegas" OR "New Hampshire" OR "New Jersey" OR "New Mexico" OR "New York" OR "North Carolina" OR "North Dakota" OR Ohio OR Cincinnati OR Oklahoma OR Oregon OR Pennsylvania OR Philadelphia OR "Rhode Island" OR "South Carolina" OR "South Dakota" OR Tennessee OR Nashville OR Memphis OR Texas OR Houston OR Utah OR Vermont OR Virginia OR Seattle OR "West Virginia" OR Wisconsin OR Wyoming) OR

TI:Washington OR AB:Washington OR

AF((Birmingham N1 al) OR Huntsville OR (Montgomery N1 al) OR anchorage OR fairbanks OR Phoenix OR Tuscon OR Flagstaff OR Berkeley OR Stanford OR Vail OR Denver OR Farmington OR "new haven" OR Hartford OR Wilmington OR Newark OR Miami OR (Athens N1 ga) OR (Augusta N1 ga) OR Boise OR Urbana OR Evanston OR Lexington OR Louisville OR Bardstown OR (Scarborough N1 me) OR Bethesda OR Baltimore OR Rockville OR (worcester N1 ma) OR Burlington OR "st paul" OR "saint paul" OR (Jackson N1 ms) OR (Columbia N1 mo) OR Bozeman OR Omaha OR Lincoln OR Columbus OR Cleveland OR Portland OR Hershey OR providence OR Richmond OR Washington) OR

(MH "Canada+") OR

TI(Canada* OR Canadi* OR Alberta* OR Calgary* OR Edmonton* OR "British Columbia*" OR Vancouver* OR Victoria* OR Manitoba* OR Winnipeg* OR "New Brunswick*" OR Fredericton* OR Moncton* OR Newfoundland* OR "New Foundland*" OR Labrador* OR "St John*" OR "Saint John*" OR "Northwest Territor*" OR Yellowknife* OR "Nova Scotia*" OR Halifax* OR Dalhousie* OR Nunavut* OR Igaluit* OR Ontario* OR Ontarian* OR Toronto* OR Ottawa* OR Hamilton OR Queen's OR McMaster* OR Kingston* OR Sudbury* OR "Prince Edward Island*" OR Charlottetown* OR Quebec* OR Montreal* OR McGill* OR Laval* OR Sherbrooke* OR Nunavik* OR Kuujjuaq* OR Inukjuak* OR Puvirnituq* OR Saskatchewan* OR Saskatoon* OR Yukon* OR Whitehorse*)

OR

AB (Canada* OR Canadi* OR Alberta* OR Calgary* OR Edmonton* OR "British Columbia*" OR Vancouver* OR Victoria* OR Manitoba* OR Winnipeg* OR "New Brunswick*" OR Fredericton* OR Moncton* OR Newfoundland* OR "New Foundland*" OR Labrador* OR "St John*" OR "Saint John*" OR "Northwest Territor*" OR Yellowknife* OR "Nova Scotia*" OR Halifax* OR Dalhousie* OR Nunavut* OR Igaluit* OR Ontario* OR Ontarian* OR Toronto* OR Ottawa* OR Hamilton OR Queen's OR McMaster* OR Kingston* OR Sudbury* OR "Prince Edward Island*" OR Charlottetown* OR Quebec* OR Montreal* OR McGill* OR Laval* OR Sherbrooke* OR Nunavik* OR Kuujjuaq* OR Inukjuak* OR Puvirnituq* OR Saskatchewan* OR

Saskatoon* OR Yukon* OR Whitehorse*)

OR

AF(Canada* OR Canadi* OR Alberta* OR Calgary* OR Edmonton* OR "British Columbia*" OR Vancouver* OR Victoria* OR Manitoba* OR Winnipeg* OR "New Brunswick*" OR Fredericton* OR Moncton* OR Newfoundland* OR "New Foundland*" OR Labrador* OR "St John*" OR "Saint John*" OR "Northwest Territor*" OR Yellowknife* OR "Nova Scotia*" OR Halifax* OR Dalhousie* OR Nunavut* OR Igaluit* OR Ontario* OR Ontarian* OR Toronto* OR Ottawa* OR Hamilton OR Queen's OR McMaster* OR Kingston* OR Sudbury* OR "Prince Edward Island*" OR Charlottetown* OR Quebec* OR Montreal* OR McGill* OR Laval* OR Sherbrooke* OR Nunavik* OR Kuujjuaq* OR Inukjuak* OR Puvirnituq* OR Saskatchewan* OR Saskatoon* OR Yukon* OR Whitehorse*)

)

APPENDIX B: KEY INFORMANT INTERVIEW GUIDE

RED: question modifications for a professional organization that has a broad viewpoint

Introductory Questions

1. **Please describe [name of institution/organization] and your role as _____ of _____.**
   (ascertain if role in practice, education, professional organization, etc.)

2. *(if not obvious)*: **Would you say your experience with MA roles is more associated with education and training, or their roles in health care practice, and/or other aspects such as workforce policy and planning? *(use this info to choose among questions below)***

3. **And are there occupations other than MAs who play similar supportive roles in the clinic that you think should be included in our discussion? [Across your constituents/across the organizations you interact with...]** *(If they provide examples, refer to them as appropriate in questions that follow)*

If involved in practice – go to Q. 4

If involved primarily in education – go to Q. 19

For KIs involved in practice: MAs' current telehealth roles?

4. **In general, before the pandemic, how extensively did you/your site use telehealth, and has that/how has that changed due to the pandemic? "..before the pandemic, how extensive would you say was telehealth use among your constituents/across the organizations you interact with, and how has that changed due to the pandemic?" (unlikely to specify % of visits before/after in this context, but could ask about types of visits most commonly used)**
   - If not used before or after, why not?
   - If yes:
     - What % of visits before then after?
     - What types of visits? (e.g., preventive care, urgent care, chronic care, BH visits)

5. **In general, before the pandemic, what support staff were involved in the delivery of telehealth, and how/if were MAs involved? Add "from your vantage point, what have you observed..."**
   - How did that change to adapt to the pandemic how extensively would you say MAs?
   - If MAs are not used in telehealth services, why?

6. **We're interested in the composition of telehealth teams. Do you have interprofessional telehealth teams, and if so what admin and clinical professions make up your telehealth teams?**

7. **To what extent are MAs given the option to be involved in telehealth? Have you found MAs have preferences to work in telehealth or not?**

8. **To be more specific, we have a list of tasks associated with telehealth visits to ask you about. To what extent would you say MAs (and/or the other staff mentioned above) are performing these tasks? (If yes, ask: Were they doing it before the pandemic?)**

   ❑ Scheduling of telehealth visits (initial and follow-up visits)

   ❑ Determining patient telehealth preferences and capabilities

   ❑ Preparing patients for telehealth visits (equipment check, tutorial/training…)

   ❑ Preparing provider and/or office for telehealth visits (equipment check, checking lighting, sound check, putting sign on door to not disturb…)

- ❑ Scrubbing charts and/or preparing the HPI (history of present illness) or patient records in advance of the telehealth visit.
- ❑ Checking in patients for telehealth visits (verify patient identifiers, check who else is in the room, see if they are in a position where they feel comfortable and have privacy)
- ❑ Patient privacy/Confidentiality/HIPAA compliance assurance for telehealth visits
- ❑ Troubleshooting telehealth technology during the visit
- ❑ Patient education around taking vitals with own equipment – tell staff what vitals were, etc. prior to or during the telehealth visit
- ❑ Documenting, tele-presenting, scribing, etc. during the telehealth visit
- ❑ Distributing educational handouts/after visit summaries/referral information after the telehealth visit
- ❑ Monitoring/responding to secure messaging before/after the telehealth visit
- ❑ Hand off to other team members (internal referrals) after the telehealth visit
- ❑ Providing support to follow-up calls, health navigating (external referrals) after the telehealth visit
- ❑ Administering patient satisfaction surveys and evaluations after the telehealth visit
- ❑ Maintaining/updating patient registries with information from telehealth visits

Are there other tasks related to telehealth we haven't mentioned?

9. **Were MAs generally adequately prepared for these roles before the pandemic, or did they need to learn on-the-job as offices pivoted to more telehealth? For example, did they have the technical skills needed and the ability to adapt to a rapidly changing environment?**

10. **In practices you're familiar with, how would you describe MAs' telehealth roles in relation to the rest of the team such as RNs, LPNs, front desk staff, and the providers (physicians, NPs, PAs)?**
    - Would you describe their roles as generally complementary? Interchangeable? Duplicative?
    - In what ways does clinic team size and types of occupations involved affect the roles?
    - To what extent did local recruitment/retention issues for MAs affect how they were used in the team?

Impact of clinic model/location

11. **Is your clinic reimbursement model primarily fee-for-service, capitation (e.g., Kaiser Permanente), or other model (e.g., FQHC)?**
    - Can you estimate the approximate breakdown of your patients by insurance type, i.e. % Medicare, % Medicaid, % private insurance, % uninsured? ***N/A to professional org, skip to Q12***

12. **How does your reimbursement model affect decisions regarding MA roles and workflow, and use of MAs to support telehealth visits? From your vantage point, how does clinic payment model affect decisions regarding MA roles and workflow, and use of MAs to support telehealth visits – such as in clinics that are primarily FFS vs. capitated managed care like Kaiser, or FQHCs, etc.?**

13. **Does your clinic support the following related to MAs' roles in delivering telehealth/ Have you observed much support for MAs roles delivering telehealth in the following ways:**

- ❑ advanced training and professional development related to telehealth
- ❑ increasing salaries/pay differentials for MAs who have taken on new roles supporting telehealth
- ❑ has your clinic developed specialized roles or job descriptions for MAs involved in telehealth?
- ❑ Any other ways your clinic recognizes MAs roles re: telehealth?

14. **Typically, one size doesn't fit all. Have you experienced or observed how different practice sizes, types, or locations affect optimal roles for MAs' in delivering telehealth?** *(Describe)*
Probes: geographic differences such as rural vs. urban, region of the U.S.; large vs. small; safety net clinics vs. clinics

with mostly privately insured patients)

15. **Are you aware of (or have you experienced) requirements, such as by health care employers or states, for MAs to complete telehealth training?** *(Describe)*

16. **How and to what extent did/do state and federal scope of practice and/or telehealth-specific laws and regulations affect the roles MAs can have in supporting health care delivery via telehealth?** *i.e., what types of laws/regulations are affecting the roles, and are they barriers or facilitators?*
Probe: Such as specific Medicare (CMS) requirements as to which occupations can deliver telehealth and be reimbursed?

Preparation for telehealth roles in initial education/training

17. **How well are MAs, based on your experience, prepared in their initial education/training to support telehealth in clinic settings?**

18. **What, if any, types of additional training and/or technical support would help to improve MAs' roles in delivering telehealth?**
    - In initial education training?
    - In continuing education -- once they're employed?
    - Are there adequate resources for the training/support?

For KIs involved in EDUCATION/Training: Current MA education/training for telehealth roles?

19. **What has been your observation about the extent to which MAs have been used in telehealth visits prior to, then as a result of, the pandemic?**
    - When MAs are involved in delivering telehealth, have you observed any specialized roles and/or settings in which they are more or less involved in telehealth? (e.g., preventive vs. chronic care, larger vs. smaller clinics, etc.)

20. **Please describe how telehealth roles for MAs/Support staff are generally included in their initial education curriculum and/or in their clinical training?**

21. **To be more specific, we have a list of tasks to ask you about. To what extent would you say MAs are prepared in their initial training to perform these tasks? Is the curriculum undergoing change in response to the pandemic?**

    ❑ Scheduling of telehealth visits (initial and follow-up visits)
    ❑ Determining patient telehealth preferences and capabilities
    ❑ Preparing patients for telehealth visits (equipment check, tutorial/training…)
    ❑ Preparing provider and/or office for telehealth visits (equipment check, checking lighting, sound check, putting sign on door to not disturb…)
    ❑ Scrubbing charts and/or preparing the HPI (history of present illness) or patient records in advance of the telehealth visit.
    ❑ Checking in patients for telehealth visits (verify patient identifiers, check who else is in the room, see if they are in a position where they feel comfortable and have privacy)
    ❑ Patient privacy/Confidentiality/HIPAA compliance assurance for telehealth visits
    ❑ Troubleshooting telehealth technology during the visit
    ❑ Patient education around taking vitals with own equipment – tell staff what vitals were, etc. prior to or during the telehealth visit
    ❑ Documenting, tele-presenting, scribing, etc. during the telehealth visit
    ❑ Distributing educational handouts/after visit summaries/referral information after the telehealth visit

❑ Monitoring/responding to secure messaging before/after the telehealth visit

❑ Hand off to other team members (internal referrals) after the telehealth visit

❑ Providing support to follow-up calls, health navigating (external referrals) after the telehealth visit

❑ Administering patient satisfaction surveys and evaluations after the telehealth visit

❑ Maintaining/updating patient registries with information from telehealth visits

Are there other tasks related to telehealth we haven't mentioned?

22. **From your experience or from what you've learned from practice settings, were MAs generally adequately prepared for telehealth roles before the pandemic, or did they need to learn on-the-job as offices pivoted to more telehealth? For example, did they have the:**
    - Ability to adapt to a rapidly changing environment
    - Technical skills needed
    - Team collaboration/interaction with respect to telehealth (any different from team skills in general?)

23. **Based on your knowledge of what's happening in practice, how or to what extent do the following affect how you develop and deliver curriculum for MAs related to telehealth:**
    - Reimbursement
    - Laws/regulations
    - Practice size/type/payer mix
    - Anything else?

24. **In what ways is MA curriculum related to telehealth changing? Is it likely there will be more instruction specifically addressing telehealth in the future?**

25. **To your knowledge, how consistent is telehealth training across MA programs around the country?** If there is variety, in what ways?
    Probes: regional; public vs. private education institutions; etc…

26. **Do you see MA accreditation requirements changing in the future or have they recently changed in response to increased use of telehealth?**

Future focus – Both Practice and Education

27. **Do you have any thoughts on how MAs' roles may change in the near future?**

28. **What do you think are the most important skills for MAs' to obtain through education/training that would enhance their contributions to high quality telehealth care in the future?**
    - Through initial education? (coursework vs. clinical)
    - Continuing education for incumbent workers?

29. **Are there telehealth tasks or roles that MAs generally are not doing now that they could do to enhance telehealth care?**
    - Are these new tasks/roles? Or are they things that other providers, nurses or others are doing that MAs might be able to take on (to free up the other providers)?
    - Are there/what are barriers to MAs taking on these new tasks/roles?

30. **Are you aware of workforce-related quality improvement (QI) efforts, workflow redesign, or identification of "best practices" to improve telehealth delivery into the future that might affect MA roles?**

31. **Looking forward: Are there other ways we haven't yet discussed in which telehealth provides opportunities for, or perhaps hinders, MA roles?** Probes:
    - Such as new opportunities for professional development for MAs?
    - Are there other staff, such as more entry level, who could take on some telehealth tasks that MAs are doing now?

32. **Do you/do MA education/training programs have the resources (such as skilled faculty and/or funding) to adequately prepare MAs for clinical practice using increasing amounts of telehealth?**
    - *Probe: Funding for telehealth simulation*

33. **Thank you for your time and valuable input. Is there anything additional you want to add? Do you have any questions for us?**