(ConnAPA)

ConnAPA Scope of Practice Review Request[1]

Date: August 15, 2018
Submitted to: The State of Connecticut Department of Public Health
By: The Connecticut Academy of Physician Assistants Government Affairs Committee

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[1] Pursuant to Public Act 11-209, AN ACT CONCERNING THE DEPARTMENT OF PUBLIC HEALTH'S OVERSIGHT RESPONSIBILITIES RELATING TO SCOPE OF PRACTICE DETERMINATIONS FOR HEALTH CARE PROFESSIONS: *Section 1. (NEW) (Effective July 1, 2011) (a) Any person or entity, acting on behalf of a health care profession that seeks to establish a new scope of practice or change a profession's scope of practice, may submit a written scope of practice request to the Department of Public Health not later than August fifteenth of the year preceding the commencement of the next regular session of the General Assembly.* https://www.cga.ct.gov/2011/ACT/Pa/pdf/2011PA-00209-R00HB-06549-PA.pdf

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On behalf of more than 2600 licensed Physician Assistants (PAs) in the state of Connecticut, the Connecticut Academy of PAs (ConnAPA) seeks to modernize the PA Practice Act to improve patient access to care and promote flexible and efficient care delivery for the residents of the State of Connecticut.

I. A plain language description of the request:

a. **ADAPTIVE COLLABORATION REQUIREMENTS and modernize current PA practice statute by replacing the term "supervision" with "collaboration"[2] to reflect guidelines[3] and recommendations from the American Academy of PAs, [4, 5]** as well as several medical organizations, (including the American College of Physicians,[6] the American Academy of Family Physicians,[7] the American Congress of Obstetricians and Gynecologists, [8]the American Osteopathic Association[9], the National Governor's Association[10] and more[11],[12]) that support adaptable collaboration requirements. Such changes have been shown to decrease the overall cost of healthcare and increase access to care.[13] As well such changes would improve the statutory and regulatory environments for PA practice, would help to remove barriers to PA employment, and would foster more PA-positive workplace environments. Adaptive collaboration means the continuous process by which a PA provides services within a healthcare team that includes one or more physicians. Adaptive collaboration would be determined by written agreement at the practice level.

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[2] *"Collaboration" best describes PA practice,* American Academy of PAs, November 2016, https://www.aapa.org/wp-content/uploads/2017/02/COLLABORATION_Describes-PA-practice_11-2-16.pdf , accessed July 16, 2018.

[3] *Guidelines for State Regulation of PAs (2017),* American Academy of PAs, https://www.aapa.org/wp-content/uploads/2017/02/Guidelines_for_State_-Regulation_of_-PAs-1.pdf accessed July 16, 2018.

[4] *Model state legislation for physician assistants*, American Academy of PAs, https://www.aapa.org/wp-content/uploads/2017/02/Model_State_Legislation_May_2016-1.pdf, accessed July 16, 2018.

> *"Collaboration" means the process in which PAs and physicians jointly contribute to the healthcare and medical treatment of patients with each collaborator performing actions he or she is licensed or otherwise authorized to perform. Collaboration shall be continuous but shall not be construed to require the physical presence of the physician at the time and place that services are rendered.*

[5] *Six Key Elements of a Modern State PA Practice Act,* American Academy of PAs, https://www.aapa.org/wp-content/uploads/2017/01/Issue-brief_Six-key-elements_0117-1.pdf, accessed July 30, 2017.

[6] Doherty RB, Crowley RA, for the Health and Public Policy Committee of the American College of Physicians. *Principles Supporting Dynamic Clinical Care Teams: An American College of Physicians Position Paper*. Ann Intern Med. 2013;159:620-626. doi: 10.7326/0003-4819-159-9-201311050-00710. http://annals.org/aim/article/1737233/principles-supporting-dynamic-clinical-care-teams-american-college-physicians-position, accessed July 30, 2017.

[7] *Team-Based Care*, American Academy of Family Physicians http://www.aafp.org/about/policies/all/teambased-care.html, accessed July 30, 2017.

[8] *Collaboration in Practice: Implementing Team-Based Care. An inter-professional Task Force on Collaborative Practice to revise ACOG's 1995 Guidelines for Implementing Collaborative Practice publication*. American Congress of Obstetricians and Gynecologists. March, 2016. http://www.acog.org/Resources-And-Publications/Task-Force-and-Work-Group-Reports/Collaboration-in-Practice-Implementing-Team-Based-Care, accessed July 30, 2017.

[9] *Osteopathic Physicians and Physician Assistants: Excellence in Team-Based Medicine*, *A Joint Statement of the American Osteopathic Association and the American Academy of Physician Assistants July 2013.* https://www.osteopathic.org/inside-aoa/public-policy/state-government-affairs/Documents/aoa-aapa-statement.pdf, accessed July 30, 2017.

[10] National Governors Association. The Role of Physician Assistants in Health Care Delivery. September 2014 http://www.nga.org/files/live/sites/NGA/files/pdf/2014/1409TheRoleOfPhysicianAssistants.pdf.

[11] *Major groups support PA practice and collaboration*, American Academy of PAs, November 2016. https://www.aapa.org/wp-content/uploads/2017/02/COLLABORATION_Major-groups-support-PAs_11-2-2016.pdf, accessed July 30, 2017.

[12] *Physician Assistants: Modernize Laws to Improve Rural Access*. National Rural Health Association, April 8, 2018. https://www.ruralhealthweb.org/NRHA/media/Emerge_NRHA/Advocacy/Policy%20documents/04-09-18-NRHA-Policy-Physician-Assistants-Modernize-Laws-to-Improve-Rural-Access.pdf. Accessed August 12, 2018.

[13] *The effects of expanded nurse practitioner and physician assistant scope of practice on the cost of Medicaid patient care,* Health Policy. 121 (2017) 189-196.

b. **ALLOW PAs TO PRACTICE TO THE FULL EXTENT OF THEIR EDUCATION, TRAINING AND EXPERIENCE:**
-**Eliminate the concept that a PA should be considered the "agent"[14] of a physician** by removing language in statute requiring the collaborating physician to assume responsibility of care provided by the PA. PAs should be responsible for their own professional actions. Nothing in statute should require or imply that the physician is responsible or liable for the care provided by a PA, unless the PA is acting on the specific instructions of the physician or, if employed directly by the physician, under the concept of *Respondeat Superior*.[15]

-**Include PAs by professional name specifically in all relevant health statutes** and regulation to harmonize statutes with physicians and advanced practice nurses and to facilitate timely and efficient delivery of healthcare services.
For example:
-Specify PAs as "licensed practitioners" authorized to order patient restraint & seclusion.[16]
-Allow PAs to sign any forms that require a physician signature, including DNR.

c. **PROMOTE ADMINISTRATIVE SIMPLIFICATION by eliminating the administrative burden to collaborating physicians imposed by redundant chart documentation requirements.** The written agreement requirement in statute addresses the medical duties and functions of the PA, including the initiation of controlled substances, as well as the physician responsibility to review the care provided by the PA. Given that prescribing controlled substances is clearly addressed statutorily in the required written agreement, the additional requirement for documentation of the physician's "approval" in the patient's medical record for controlled substances is redundant and does not add value to the care of the patient.

d. **REMOVE THE BARRIER that prohibits PAs from certifying "debilitating medical conditions" in the context of the Medical Marijuana Program.** PAs diagnose and treat a wide variety of complex conditions every day in Connecticut. In private practice especially, PAs often have their own panel of patients that they are responsible for. It is intuitive that PAs should be able to have the ability to officially certify the medical conditions that qualify for Connecticut's Medical Marijuana Program.

Background: PAs are Integral Members of the Healthcare Workforce
Increased access to health insurance since the Affordable Care Act of 2010, population growth and patient aging have created an exponential increase in demand for healthcare services that cannot be met by the current healthcare workforce. According to a study released by the Association of American Medical Colleges (AAMC), "…physician demand will grow faster than supply, leading to a projected…shortfall of between 42,600 and 121,300 physicians by 2030." That is a higher predicted shortfall than last year's report and takes into account "projected rapid growth in the supply of APRNs

[14] https://legal-dictionary.thefreedictionary.com/agent. Accessed June 21, 2018.
[15] http://legal-dictionary.thefreedictionary.com/respondeat+superior. Accessed June 21, 2018.
[16] *See §482.13(e)(5)*. The Centers for Medicare and Medicaid Services (CMS) Medicare Conditions of Participation for Hospitals require specificity in State law with regards to who may order restraints or seclusion. https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_a_hospitals.pdf. Accessed July 30, 2017.

and PAs and their role in care delivery."[17] Meanwhile, the Bureau of Labor and Statistics (BLS) predicts a 37% growth in employment for PAs through 2026, which is said to be "Much faster than average."[18] Improving access to medical care provided by PAs can help meet growing patient demand in the face of a physician shortage.

Connecticut is experiencing many of the same challenges reflected in the national data. The SustiNet Healthcare Workforce Task Force report,[19] published in 2010, showed that Connecticut was already facing a shortage of many health care workforce categories, including physicians and PAs. According to the Robert Graham Center projections published in 2013, pressures from a growing, aging, increasingly insured population were again cited as contributing to workforce shortages. All states have an obligation to protect their residents by regulating the practice of medicine within the state. By licensing the PA profession through state law and designating a state agency to regulate PA practice, states both protect the public and define the role of PAs. As the delivery of healthcare has evolved, state legislators have modified their approach to PA regulation in response to a growing body of information demonstrating the safety and high quality of PA practice[20] and the need to better utilize their healthcare workforce. The Connecticut Health Care Workforce Scan showed that 27% of physicians and surgeons are aged 60 or older, with impending retirement contributing to the impending physician shortage in the state.[21] In 2011, the Connecticut Department of Health's report on Health Care for Connecticut's Underserved Populations identified 104 designated Health Profession Shortage Areas. [22] The Robert Graham Center Report called on Connecticut policymakers to consider strategies to bolster the primary care pipeline to address current and growing demand for PCPs to adequately meet health care needs. (See Figure 1.) [23]

[17] IHS Inc., *The Complexities of Physician Supply and Demand 2018 Update: Projections from 2016 to 2030*, March 2018, https://aamc-black.global.ssl.fastly.net/production/media/filer_public/85/d7/85d7b689-f417-4ef0-97fb-ecc129836829/aamc_2018_workforce_projections_update_april_11_2018.pdf. Accessed June 22, 2018.
[18] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2017-18 Edition*, Physician Assistants, on the Internet at https://www.bls.gov/ooh/healthcare/physician-assistants.htm Accessed June 21, 2018.
[19] SustiNet Healthcare Workforce Task Force (2010). Final Report, http://www.ct.gov/sustinet/lib/sustinet/taskforces/healthcareworkforce/sustinet_wkfrce_report_dh_ema_final_with_cover.pdf. Accessed July 30, 2017.
[20] Articles and Reports on the PA Profession: Selected Topics, American Academy of PAs, April 2018. https://www.aapa.org/wp-content/uploads/2017/11/Bibliography-on-the-PA-Profession-11_17_17.pdf. Accessed June 22, 2018.
[21] University of Connecticut Center for Public Health and Health Policy (2013). *Connecticut Healthcare Workforce S*can. http://www.healthreform.ct.gov/ohri/lib/ohri/sim/work_force/ct_healthcare_workforce_scan.pdf. Accessed July 30, 2017.
[22] Connecticut Department of Public Health (2011). *Healthcare for Connecticut's Underserved Populations.* http://www.ct.gov/dph/lib/dph/hisr/pdf/medically_underserved_issuebrief2011.pdf, Accessed July 30, 2017.
[23] Petterson, Stephen M; Cai, Angela; Moore, Miranda; Bazemore, Andrew. State-level projections of primary care workforce, 2010-2030. September 2013, Robert Graham Center, Washington, D.C. http://www.graham-center.org/content/dam/rgc/documents/maps-data-tools/state-collections/workforce-projections/Connecticut.pdf. Accessed June 21, 2018.

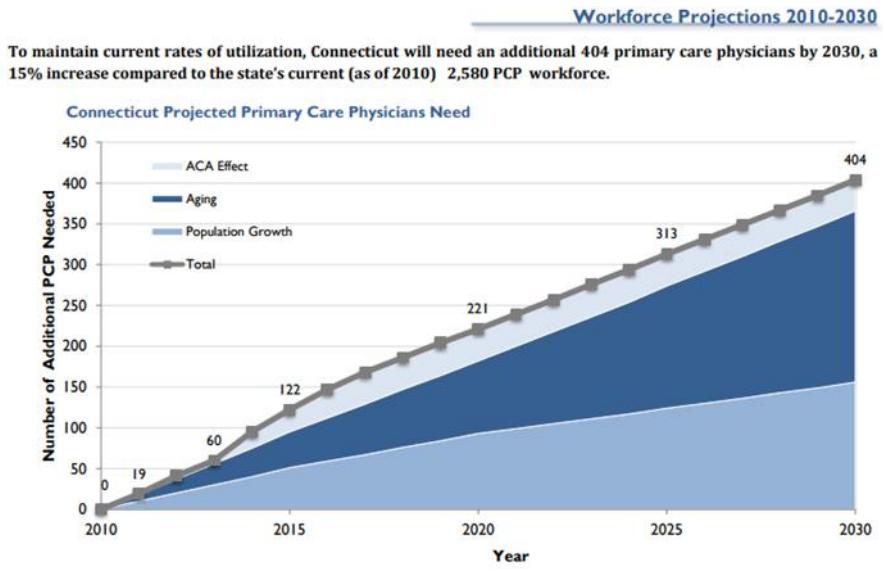

FIGURE 1

According to the National Commission on Certification of Physician Assistants (NCCPA), only 15.9% of the certified PAs in the state of Connecticut practice in Primary Care. That figure has stayed steady for several years, even as the number of licensed PAs continues to increase in CT. The NCCPA goes on to find that there appears to be a gross mal-distribution of PAs within CT, **ranking the state second to last in the US in terms of utilization of PAs in primary care settings**.[24,25] The nationwide percentage of PAs in primary care is 26.7%. By modernizing the PA Practice Act, CT policymakers can reduce practice barriers for the deployment of PAs into the healthcare workforce and facilitate integration into more practices and settings in desperate need of medical practitioners, such as primary care.

II. Public health and safety benefits that the requestor believes will be achieved should the request be implemented and, if applicable, a description of and harm to public health and safety should the request not be implemented:

a. ADAPTIVE COLLABORATION REQUIREMENTS

From the AAPA:

"Fifty years ago, when the PA profession began, typically, a PA practiced with a single physician, small medical group or in a hospital. Because the new profession had no track record to assure regulators of their excellent training or quality, practice laws were written with built-in precautions, such as designated physician supervisors and no prescriptive authority. Over time, countless studies documented the high quality medical care and expanded access PAs provide. As evidence of high quality care and patient safety became clear, legislators realized PA supervision laws were overly restrictive. So they began updating the laws, allowing PAs and physicians to practice in separate locations, authorizing PAs

[24] *2015 Statistical Profile of Certified Physician Assistants by State,* National Commission on Certification of Physician Assistants 2015, https://prodcmsstoragesa.blob.core.windows.net/uploads/files/2015StatisticalProfileofCertifiedPhysicianAssistantsbyState.pdf, Accessed June 22, 2018.

[25] *2017 Statistical Profile of Certified Physician Assistants: An Annual Report of the National Commission on Certification of Physician Assistants.,* National Commission on Certification of Physician Assistants 2018, http://prodcmsstoragesa.blob.core.windows.net/uploads/files/2017StatisticalProfileofCertifiedPhysicianAssistants.pdf. Accessed June 22, 2018.

to prescribe, eliminating limits on PAs-to-physician practice ratios, and allowing individual teams to define their practices. Studies confirmed that quality remained high. Malpractice claims since 1990 reveal a remarkably low number of claims paid against PAs."[26]

The word "supervise" no longer accurately depicts the professional relationship between PAs and physicians and diminishes the role PAs currently hold in the healthcare workforce. The antiquated terminology has led to variable interpretations of statute, creating a real or perceived barrier to utilization of PAs, with a bias toward NPs in a variety of settings. In some instances however, higher functioning healthcare organizations in Connecticut currently employing PAs have already adopted the team-based care language and "collaboration" when referring to PAs in their public relations materials and websites. (See Figures 2, 3, 4, 5, 6) Therefore, adopting the language of "collaboration" in statute would provide clarity and understanding to the professional relationship between physicians and PAs, which is already evolving in team-based practice.

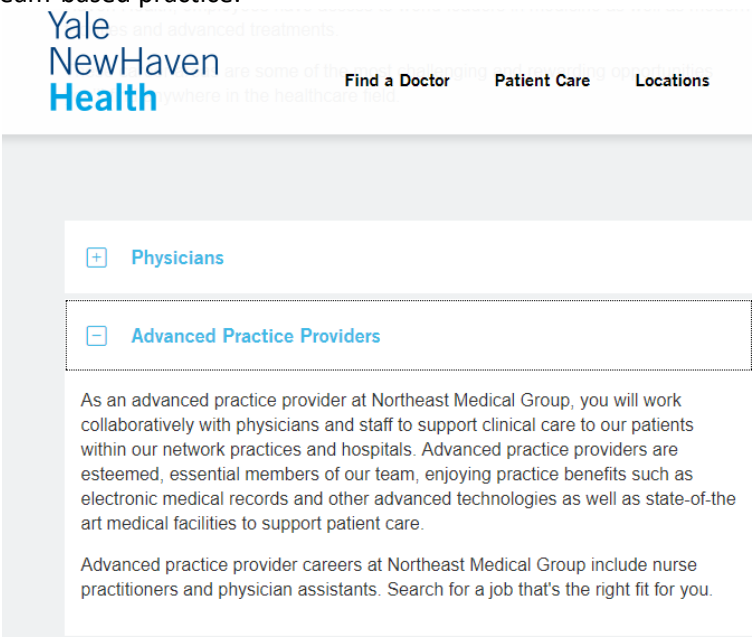

FIGURE 2 [27]

[26] *"Collaboration" best describes PA practice,* American Academy of PAs, November 2016, https://www.aapa.org/wp-content/uploads/2017/02/COLLABORATION_Describes-PA-practice_11-2-16.pdf. Accessed August 14, 2018.
[27] https://www.ynhhs.org/careers/nemg/career-areas.aspx, accessed July 30, 2017.

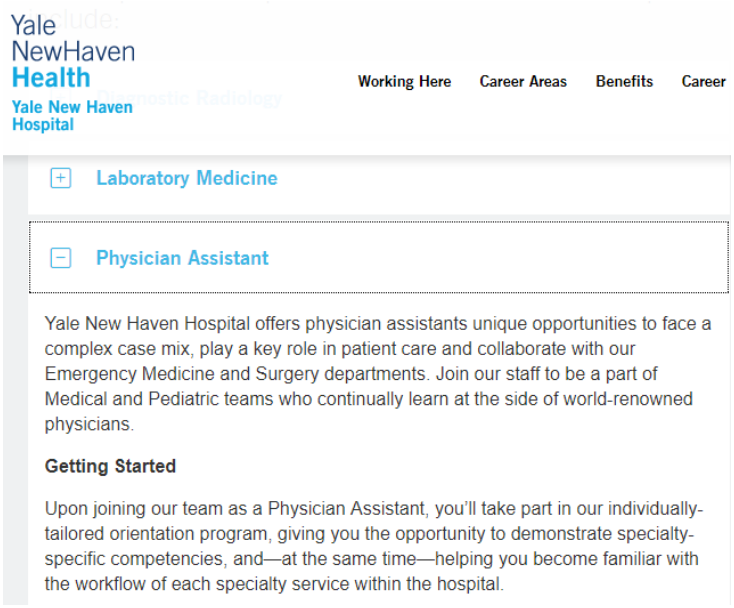

FIGURE 3 [28]

FIGURE 4 [29]

[28] https://www.ynhh.org/careers/career-areas/other-clinical-professionals.aspx, accessed July 30, 2017.
[29] https://www.stvincents.org/health-professionals/multispecialty-group/for-med-professionals, Accessed July 30, 2017.

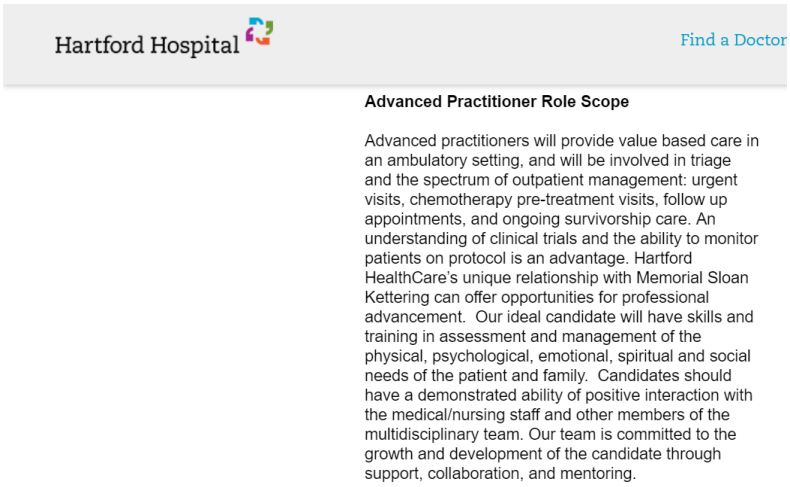

FIGURE 5[30]

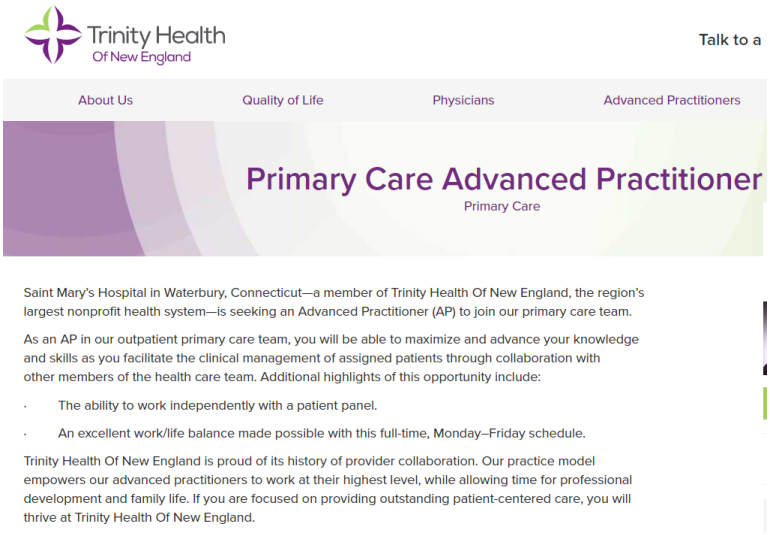

FIGURE 6[31]

The consequences of not adopting the adaptive collaboration requirements would be a lost opportunity for a universal understanding of the role PAs play on the health care team, perhaps limiting deployment into underserved areas or innovative care delivery due to the perception that PA "supervision" is onerous and a burden to the employer.

b. ALLOW PAs TO PRACTICE TO THE FULL EXTENT OF THEIR EDUCATION, TRAINING AND EXPERIENCE

The primary benefit of removing "agency" would be to further provide clarity to the collaborative relationship between the physician and PA. When practicing in collaboration with a physician, ***PAs are responsible for the care they provide***. Legislation should not mandate physician liability for the acts of PAs through this agency, supervisory relationship. As fewer physicians own their medical practices, with the latest figures from the AMA finding only 47.1% of physicians remaining practice owners as of 2016,

[30] https://hartfordhospital.org/health-professionals/for-job-seekers/career-opportunities/external-job-postings. Accessed June 22, 2018.
[31] https://www.jointrinityne.org/Opportunities/Opportunity/primary-care-nurse-practitioner-physician-assistant-np-pa-smh. Accessed June 22, 2018.

and are subsequently becoming employed themselves, with two thirds of physicians under 40 in employed positions, the model of PAs working as employees of the physician has become less common.[32, 33] As a result, employed physicians are reluctant to enter into supervisory agreements and accept liability for PAs, while the organization benefits financially from the increased business and revenue generated by the PAs.

The consequence of not removing "agency" would be the continued hesitancy on the part of some physicians to collaborate with PAs for fear of assigned liability for having done so. This has created a perceived bias in favor of APRNs in some organizations, because the physicians feel unencumbered by any responsibility for the actions of the APRN.

Adding PAs to the list of medical providers along with physicians and APRNS who can perform certain medical functions will increase efficiencies and access to care, while minimizing the administrative burden currently faced by physicians particularly with regards to completion of certain medical forms and signatures. Waiting for a physician signature can lead to delay of care and potentially patient harm. Often PAs are finding difficulty with acceptance of signatures on various forms, though in theory the current "delegation agreement" should allow for such certifications. This provides a barrier to care as mentioned above and not correcting this issue will continue to lead to increased costs for scheduling new appointments with physicians for simple signatures and delayed services for the patient.

c. PROMOTE ADMINISTRATIVE SIMPLIFICATION by eliminating the administrative burden to collaborating physicians imposed by redundant chart documentation requirements.

Removing the physician 'documentation of approval' for the initiation of Schedule II and III controlled substances (often implemented in practice as co-signature) would not pose any additional risk to CT residents. PAs have extensive education, clinical experience in pharmacology and clinical pharmaco-therapeutics, are nationally board certified, are required to sit for board recertification exams every 10 years, are required to maintain CME requirements of 100 hours every 2 years along with CT state CME requirements for prescribing controlled substances and pain management[34], and are required to register for controlled substance prescribing at the state (DCP) and federal (DEA) levels. This is all required for on-going licensure renewal and re-certification maintenance. PAs are also required to register and utilize the CT Prescription Drug Monitoring Program for ongoing patient safety and monitoring in exactly the same manner as CT physicians and APRNs. Additionally, PAs not only meet, but also exceed post-graduate training in the areas of clinical practice, post-graduate pharmacology, and CME requirements when compared to APRN colleagues according to the State of CT DPH.[35]

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[32] Kane, Carol K. *"Updated Data on Physician Practice Arrangements: Inching Toward Hospital Ownership*," AMA Economic and Health Policy Research, July 2015.

[33] Kane, Carol K. *"Updated Data on Physician Practice Arrangements: Physician Ownership Drops Below 50 Percent,"* AMA Policy Research Perspectives, June 2017.

[34] State of Connecticut Department of Public Health Licensing Requirements>Continuing Education https://portal.ct.gov/DPH/Practitioner-Licensing--Investigations/Physician-Assistant/Continuing-Education, accessed August 14, 2018.

"Connecticut licensed physician assistants must also complete not less than one contact hour of training or education in prescribing controlled substances and pain management in the preceding two- year period."

[35] CT DPH Report to the General Assembly. *An Act Concerning the Department of Public Health's Oversight Responsibilities relating to Scope of Practice Determinations: Scope of Practice Review Committee Report on Advanced Practice Registered Nurses*. Feb 2014.

Additionally, physicians and PAs currently are statutorily required to enter into an agreement delineating how controlled substances are to be prescribed by the PA, as well as how the physician will review the care provided by the PA. Requiring the physician to also add documentation in the patient's chart is redundant, does not add value to the patient's care, and is an unnecessary time expenditure for the physician, already identified as a limited (and shrinking) workforce. Additionally, implementation of the electronic health record has been particularly complicated around this issue, as organizations struggle to implement the work flow to meet this onerous requirement.

Failure to remove this administrative redundancy will continue to burden the physicians and cause consternation for the organizations utilizing electronic health records. Significant time, energy and financial resources have been wasted as implementation teams struggle to meet this medical record documentation rule.

d. REMOVE THE BARRIER that prohibits PAs from certifying "debilitating medical conditions" in the context of the Medical Marijuana Program.

As primary care providers in Connecticut, PAs should be authorized by law through their collaboration agreements to certify their patients for "debilitating medical conditions" such as: cancer, glaucoma, HIV/AIDS, Parkinson's Disease, multiple sclerosis, spinal cord damage, epilepsy, PTSD, sickle cell disease, and other illnesses recently added to the list in order for appropriate patients to become eligible for medical marijuana.[36]

PA education includes extensive training in pharmacology and clinical pharmaco-therapeutics that is equivalent or exceeds the requisite education and training required for other clinicians in CT who have authority to certify patients for medical marijuana.[37]

Additional specific training, education or testing is not required as a prerequisite to physician or APRN certification authority. As primary care and specialty providers, the conditions listed by the Department of Consumer Protection are ones that PAs diagnose and treat on a daily basis in Connecticut. Therefore, PAs should be granted the same authority to certify patients for medicinal marijuana through their practice agreements with collaborating physicians. Doing so will increase access to care options for "debilitating medical conditions."

Not removing this prohibition on PA abilities will continue to prohibit or delay access by patients who are cared for by PAs, to substances that can be of great assistance in relieving their serious, chronic medical conditions.

III. The impact that the requestor believes the request will have on the profession's ability to obtain or expand third party reimbursement for the services provided by the profession:

The request put forth in this document, ConnAPA feels should have little effect on the ability to obtain or expand third party reimbursement. The Connecticut General Statutes already mandate that insurance companies reimburse for the services performed by PAs. There remain some difficulties with PA enrollment and classification with some private insurers, and federal issues of direct reimbursement that are generally outside the scope of this request. However, with that said, it is believed that the changes requested in this proposal will increase the accountability of PA reimbursement. By maintaining

[36] CT Department of Consumer Protection, *Qualification Requirements*. https://portal.ct.gov/DCP/Medical-Marijuana-Program/Qualification-Requirements. Accessed July 5, 2018.

[37] CT DPH Report to the General Assembly. An Act Concerning the Department of Public Health's Oversight Responsibilities relating to Scope of Practice Determinations: *Scope of Practice Review Committee Report on Advanced Practice Registered Nurses.* Feb 2014. https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/practitioner_licensing_and_investigations/Scope_of_practice_2014/ReporttotheGeneralAssemblyAPRN2314finalreportnoappendixrevpdf.pdf?la=en. Accessed July 5, 2018

a "supervisory" relationship, it will continue to propagate the all too common practice of physician attestations that then push billing under the physician, instead of the PA who actually provided the service. Eliminating this practice will help to increase transparency and provide accountability for PA services.

IV. The impact that the request will have on public access to health care:

a. ADAPTABLE COLLABORATION REQUIREMENTS

These changes would lead broadly to improved statutory and regulatory environments for PA practice and in turn increase access to care for CT residents by removing or clarifying current workplace-imposed barriers to PA practice that are in place due to variable interpretations of current statute. Current antiquated, exclusionary or confusing language leads to practice restrictions that decrease CT residents' access to care. Each of these problems with confusing language leads to variable interpretations of statute and widely variable restrictive institutional policy by health facilities or physician practices that triggers delays or denials access and, thus, increased costs.

b. ALLOW PAs TO PRACTICE TO THE FULL EXTENT OF THEIR EDUCATION, TRAINING AND EXPERIENCE through removal of "agency" and inclusion of PAs in relevant statute alongside physicians and APRNs, where currently excluded, to assure patients' health care needs are fully served and protected.

As previously stated, the removal of "agency" and physician liability will open doors to increased collaboration with physicians and the organizations for which they provide services, adding to the available workforce and therefore access to care.

Once PA inclusion in appropriate areas of statute is implemented, PAs will be able to provide improved access, higher quality and more cost-effective care to patients and assure that their health care needs are served and protected. Along with our physician colleagues, PAs practice authority and responsibilities are exercised not only in primary care settings but also in many other settings including urgent care, emergency care, specialty care clinics from orthopedics to oncology, hospital-based medicine units, surgi-centers, intensive care units, and specialty intensive care units.

PAs should be included in all statutes where both APRNs and physicians are delineated as being permitted to provide care. Anything less than full inclusion is an unwarranted reduction in access to care by PAs. Although ConnAPA testified and made requests throughout the 2016 legislative process to be included where appropriate in 2016 S.B.67, ConnAPA was not successful and the bill was signed into law as Public Act16-39, AN ACT CONCERNING THE AUTHORITY AND RESPONSIBILITIES OF ADVANCED PRACTICE REGISTERED NURSES. The exclusion of PAs in some instances has created significant confusion regarding existing PA scope of practice that ultimately decreases access to care by CT residents who are served by PAs. PAs are certified in general medicine. PAs diagnose, treat and prescribe medicine. The inclusion of PAs where appropriate is not a change in PA scope of practice but, instead, making provision to allow PAs to practice to the full extent of their education and training.

The unintended consequence of Public Act 16-39 is that healthcare organizations and physicians view the expansion of the APRN's abilities to perform many of the "duties" previously limited to physicians as relieving the physician burden, making the APRN a preferred candidate for employment. As a result, while a PA may be more than capable, the job is often posted solely for APRNs. It bears mentioning that PAs are also afforded the ability to perform many of the physician functions as delineated in the written

agreement. Unfortunately, by naming APRNs as having "authority", with no mention of PAs specifically, this has been interpreted to mean that PAs are not authorized to perform certain functions, by virtue of their not being included.

PAs are trusted healthcare providers. Studies have shown that when PAs practice to the full extent of their abilities and training, hospital readmission rates and lengths of stay decrease and infection rates go down. A Harris Poll found extremely high satisfaction rates among Americans who interact with PAs. The survey found that 93 percent regard PAs as trusted healthcare providers, 92 percent said that having a PA makes it easier to get a medical appointment and 91 percent believe that PAs improve the quality of healthcare.[38]

c. PROMOTE ADMINISTRATIVE SIMPLIFICATION by eliminating the administrative burden to collaborating physicians imposed by redundant chart documentation requirements.

Removing the physician "documentation of approval" of Schedule II and III controlled substances would increase patient access to care by freeing both physicians and PAs from the excessive time burdens that over-prescriptive tasks such as unnecessary and redundant documentation impose.

d. REMOVE THE BARRIER that prohibits PAs from certifying "debilitating medical conditions" in the context of the Medical Marijuana Program.

By eliminating the restriction on PAs' ability to certify debilitating conditions that qualify patients for the Medical Marijuana Program, patients will have increased access to alternative forms of treatment that the State of Connecticut Legislature deemed effective enough to permit in CT in 2012. PAs are primary and specialty care providers, who while working in the context of the overall healthcare team, often have their own panel of patients. When a patient presents with one of the listed conditions and a request for medical marijuana certification, a PA is then unable to certify them when they are the primary medical provider for the patient, thus limiting their patients access to care. While the patient could then further delay their care and see a physician within the practice who could certify the condition, it is far more appropriate for the primary provider to assess the appropriateness for such certification.

V. A brief summary of state or federal laws that govern the health care profession making the request:

Physician assistants are licensed and regulated by the Department of Public Health in the State of Connecticut, with additional oversight by the Connecticut Medical Examining Board. Federally, PAs are recognized as Medicare Part B providers of professional services and ordering and referring providers by the U.S. Department of Health and Human Services, as well as State Medicaid, administered by the Department of Social Services in Connecticut.

VI. The state's current regulatory oversight of the health care profession making the request:

The Department of Public Health and the Medical Examining Board regulate the oversight of PAs in CT.

[38] *Attitudes Towards Physician Assistants*. American Academy of PAs, October 2014. https://www.aapa.org/wp-content/uploads/2017/01/AAPA-HarrisSurvey-Methodology-and-Tables.pdf. Accessed June 24, 2018.

VII. All current education, training and examination requirements and any relevant certification requirements applicable to the health care profession making the request:

a. Education/Training

Physician assistants practice medicine in all medical and surgical specialties in all 50 states, the District of Columbia, the U.S territories and the uniformed services collaborating with physicians. PAs are educated in intensive medical programs accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA).

ARC-PA is the accrediting agency that protects the interests of the public and physician assistant profession by defining the standards for physician assistant education and evaluating physician assistant educational programs within the territorial United States to ensure their compliance with those standards. The average PA program curriculum runs approximately 24-32 months and requires at least four years of college and some health care experience prior to admission. There are more currently 234 PA programs accredited in the United States, with 32 additional programs in development.

Due to an education modeled on the medical school curriculum, PAs learn to make life saving diagnostic and therapeutic decisions while working autonomously or in collaboration with other members of the healthcare team. PAs are certified as medical generalists with a foundation in primary care. Because of the close working relationship PAs have with physicians, PAs are educated in a medical model designed to complement physician training. PA students are taught, as are medical students, to diagnose and treat medical problems. The education consists of classroom and laboratory instruction in the basic medical and behavioral sciences (such as anatomy, pharmacology, pathophysiology, clinical medicine, and physical diagnosis), followed by clinical rotations in internal medicine, family medicine, surgery, pediatrics, obstetrics and gynecology, emergency medicine, and geriatric medicine as outlined by robust ARC-PA Accreditation Standards 4th edition for PA programs. All PA programs must meet the same ARC-PA standards.

In order to graduate, PA's are expected to meet strict and robust academic, clinical and behavioral competencies in comprehensive areas Medical Knowledge, Interpersonal & Communications Skills, Patient Care, Professionalism, Practice-based Learning & Improvement and Systems-based Practice. A PA's education does not stop after graduation. A number of postgraduate PA programs have also been established to provide practicing PAs with advanced education in medical specialties. In addition, PAs are required to take ongoing continuing medical education CME education to keep abreast of new clinical developments and advancements.

PA programs look for students who have a desire to study, work hard, and to be of service to their community. All PA programs in CT require applicants to have previous health care experience and a college level bachelor's degree. The typical nation-wide applicant already has a bachelor's degree and approximately four years of health care experience. Commonly, RNs, EMTs, armed services medics and paramedics apply to PA programs.

b. NCCPA Examination/Certification Requirements

Initial Certification

Graduates of an accredited PA program can take the Physician Assistant National Certifying Examination (PANCE) for certification administered by the National Commission on Certification of Physician Assistants (NCCPA). The multiple-choice exam assesses basic medical and surgical knowledge. After passing the PANCE, physician assistants are issued NCCPA certification and can use the "PA-C"

designation until the certification expiration date. Approximately every 2 years thereafter, it must be renewed by attaining a minimum of 100 hours of CME.

Certification Maintenance

In 2014, a new 10-year board exam re-certification maintenance cycle was initiated along with five divided 2-year periods for CME maintenance that are required for maintenance of certification by the National Commission on Certification of PAs (NCCPA). During every two-year period, every PA must earn and log a minimum of 100 hours of CME and submit a certification maintenance fee to NCCPA by December 31 of their certification expiration year. By the end of the 10th year of the certification maintenance cycle, PAs must have also passed a recertification exam. Offered at testing centers throughout the U.S., the multiple-choice Physician Assistant National Recertifying Exam (PANRE) is designed to assess on-going general medical and surgical knowledge. PAs who fail to maintain their certification must take and pass either the initial certification or re-certification exam again to regain their national certification.

See also: PA Education and Training and PA Certification and Licensure.

c. Accredited PA Programs in Connecticut

Currently, the State of Connecticut has six PA Programs offered by CT universities. There is PA program support of this request.

- Yale University School of Medicine Physician Associate Program
  - https://medicine.yale.edu/pa/
- Yale University School of Medicine Physician Assistant Online Program
  - https://paonline.yale.edu/
- Quinnipiac University School of Health Sciences Physician Assistant Program
  - https://www.qu.edu/school-of-health-sciences/graduate-programs/master-of-health-science-physician-assistant/faq/
- University of Bridgeport Physician Assistant Institute
  - http://www.bridgeport.edu/academics/graduate/physician-assistant-ms/
- Sacred Heart University Physician Assistant Studies
  - http://www.sacredheart.edu/academics/collegeofhealthprofessions/academicprograms/physicianassistant
- University of St. Joseph Physician Assistant Studies Program
  - https://www.usj.edu/academics/schools/sppas/physician-assistant-studies/

VIII. A summary of known scope of practice changes either requested or enacted concerning the health care profession in the five-year period preceding the date of the request:

- **2018**
  - 6:1 PA to physician supervision ratio repealed (HB 5163, PA 18-168)
  - PAs authorized to perform oral health screenings of public school students (HB 5163, PA 18-168)
  - PAs can certify a woman's pregnancy for the purposes of her application for health insurance outside of a normal enrollment window (PA 18-43)
- **2017**
  - Scope of Practice review request submitted to DPH- not selected for review
  - PAs permitted to give orders for peripheral IV with normal saline flush placement by a phlebotomist (HB 7174)

- Inclusion in work group to study projected shortage in psychiatry workforce (HB 7222, PA 17-146)

- **2016**
  - Scope of Practice review request submitted to DPH- not selected for review
  - PAs included in the omnibus Opioid Addiction Prevention legislation as prescribers (HB 5053, PA 16-43)
- **2015**
  - PAs included in the telemedicine practice authority (SB 467, PA 15-88)
- **2014**
  - Printed name of physician no longer a necessity on PA prescriptions and written orders (HB 5537, PA 14-231)
  - PAs included in the statute governing new rules for medical spas (SB 418, PA 14-119)
  - PAs given authority to counsel patients and administer Hepatitis C vaccine (SB 257, PA 14-203)
- **2013**
  - PA authority included in and outlined in medical spa legislation (bill was vetoed; SB 1067, PA 13-284)

IX. The extent to which the request directly impacts existing relationships within the health care delivery system:

The above requested changes would have a positive impact on physicians and the relationship between physicians and PAs. ConnAPA embraces physician collaboration for PAs and believes in enhancing the physician-PA team. Given these fundamental beliefs, ConnAPA leadership and PAs in affiliation with ConnAPA leadership have reached out to and received support from many physicians with whom we work in collaboration. Many of these physicians have offered to testify in support either in writing or in person should this proposal be recommended to the Public Health Committee for continued legislative action.

ConnAPA has previously discussed this matter with the Connecticut State Medical Society, the Connecticut Academy of Family Physicians and the Connecticut Hospital Association. Each group has expressed hesitation for various reasons and on our own it seems that we have been unable to reach consensus on our requests. Bringing these parties together and discussing it in the same room will help to bring out each party's concerns and allow ConnAPA to provide reassurance and evidence that our requests will strengthen our team and provide increased access to care.

a. ADAPTABLE COLLABORATION REQUIREMENTS

The above requested changes would have a no identified negative impact on physicians or the relationship between physicians and PAs. ConnAPA is not seeking independent practice authority outside of the team-based Physician-PA model of care – period. Team practice with physicians has been a hallmark of the PA profession since its inception in the mid 1960's and continues to be true today. ConnAPA strongly emphasizes that absolutely nothing in this proposal or current American Academy of PAs (AAPA) policy supports independent practice by PAs, a standpoint that was reaffirmed by the AAPA House of Delegates in 2017.

b. ALLOW PAs TO PRACTICE TO THE FULL EXTENT OF THEIR EDUCATION, TRAINING AND EXPERIENCE through the removal of "agency" and including PAs in statute where currently excluded to assure patients' health care needs are fully served and protected.

ConnAPA believes that the removal of agency or the concept that a PA should be considered the "agent" of a physician will be widely accepted by the vast majority of physicians and collaborating physicians alike. The primary benefit of removal of "agency" would be to bring clarity to the collaborative dynamic of the physician and PA relationship and remove liability for the physician for acts of the PA.

As previously stated, even when practicing in collaboration with a physician, PAs are responsible for the care they provide. Nothing in the law should require or imply that the collaborating physician is responsible or liable for the care provided by the PA unless the PA is acting on the specific instructions of a physician.

c. PROMOTE ADMINISTRATIVE SIMPLIFICATION by eliminating the administrative burden to collaborating physicians imposed by redundant chart documentation requirements, specifically the "documentation of approval" in the medical record for initiation of Schedule II and III controlled substances.

ConnAPA believes the vast majority of physicians will support this request, as this will be a time saver for them as a whole. Additionally, physicians with whom we have spoken state that PAs meet or exceed the requisite education and training to prescribe these agents compared to other providers who currently have no co-signature requirement. Most physicians believe oversight exists to maintain patient safety with on-going practice and delegation/collaboration agreement reviews, as well as with the use of the CT Prescription Drug Monitoring Program.

Additionally, hospitals and other healthcare organizations will likely support this provision as the removal of any unnecessary regulatory burden increases availability of the physicians to provide additional healthcare services and reduces the probability of non-compliance with a rule that provides no additional value to the health and safety of the public.

d. REMOVE THE BARRIER that prohibits PAs from certifying "debilitating medical conditions" in the context of the Medical Marijuana Program.

ConnAPA feels that eliminating this barrier would be supported by physicians for similar reasons as the bullet listed above. By allowing PAs to certify conditions for medical marijuana, it eliminates unnecessary administrative burden. It additional eliminates visits for the patient with the physician, which subsequently allows the physician to spend time seeing additional patients, instead of then delaying care to multiple patients by scheduling such a visit. PAs are educated and trained in the diagnosis of every medical condition for which the Department of Consumer Protection states can qualify our patients to apply for medical marijuana.

X. The anticipated economic impact of the request on the health care delivery system:

ConnAPA has uncovered no data to suggest that any of these changes will increase health care costs. On the contrary, there are multiple studies that conclude that initiatives aimed at improving practice efficiencies of PA-physician teams decrease overall health care costs.[39,40]

XI. Regional and national trends concerning licensure of the health care profession making the request and a summary of relevant scope of practice provisions enacted in other states:

While many laws and regulations use the term "supervision," the professional relationship between PAs and physicians is collaborative and collegial. "Supervision" fails to convey the sophistication of the team and to recognize the vast amount of autonomous decision making involved in PA practice. The most effective clinical teams are those that utilize the skills and abilities of each team member most efficiently. Ideally, state laws should define PA-physician collaboration in a way that allows for customization of healthcare teams to best meet the needs of patients in the particular setting or specialty in which the team works.

In many models of care, particularly in patient-centered medical homes, PAs serve as team leaders. A growing number of states are repealing laws that contain outdated supervision requirements, and instead allowing teams to determine how they collaborate at the practice level. These changes can only benefit the healthcare system, healthcare teams and the patients they care for.

2017-2018 State Legislative Changes for PA Practice

In recent years, many states have been updating their laws and regulations to expand PA scope of practice and eliminate administrative barriers to care. 2017 and 2018 continued a trend towards positive changes in the regulatory environment for PA practice, with 5 additional states adopting language other than "supervision" to describe the PA-physician team.

- **July 2018:** On July 2, Rhode Island Gov. Gina Raimondo signed into law **H-7002 Sub A** which mandates insurance coverage for specified treatments related to mastectomies, including those ordered by PAs and NPs. Previous law had only required coverage for physician authorization.
- **July 2018:** Missouri enacted two bills, SB 660 and SB 718, which amends the definition of "mental health professional" to include psychiatric PAs to increase access to comprehensive psychiatric services as well as alcohol and drug treatment. Additionally, a number of other provisions to increase access to care were enacted including expanding prescriptive authority, encouraging methods to increase the number of providers with buprenorphine waivers, and other positive changes for PAs.
- **June 2018:** On June 22, the Rhode Island 2019 budget was passed with the addition of PAs and NPs to the definition of **practitioner** as it relates to the definition of **medical marijuana**. This updated language will **allow** PAs to provide the certification that would allow a patient to utilize medical marijuana. PAs were previously able to certify for medical marijuana until the Department of Health

[39] Timmons, E. *The effects of expanded nurse practitioner and physician assistant scope of practice on the cost of Medicaid patient care,* Health Policy. 121 (2017) 189-196.

[40] Hooker, R.S. & Muchow, A.N. (2015). Modifying state laws for nurse practitioners and physician assistants can reduce cost of medical services. *Nursing Economic$,* 33(2):88-94.

- **May 2018:** Kansas updated **telemedicine** laws to mandate insurance payments for services provided by PAs
- **May 2018:** The District of Columbia removed **administrative barriers** to practice by amending requirements in regard to delegation agreements.
- **May 2018:** The Governor of Kentucky signed HB 497 which amended the definition of "**Qualified Mental Health Professional"** to include PAs. This bill increases access to mental health care by **allowing** PAs to conduct evaluations of individuals who present a danger or threat of danger to themselves, family, or others for purposes of **involuntary commitment.**
- **May 2018:** May 8 saw Gov. Larry Hogan sign into law a bill that helped provide **access to care**, especially in rural settings, in regard to PA preparation and dispensing of medications (which could already be prescribed by the PAs).
- **April 2018:** Tennessee passed SB 1515 which more appropriately changed the terminology used to describe the PA-physician team relationships from "supervision" to "**collaboration**."
- **April 2018:** In Utah, PAs have faced administrative barriers to sign and **certify death** because the Vital Statistics Act only mentioned physicians and NPs, SB 68 now **adds PAs** to the Act.

2016-2017 State Legislative Changes for PA Practice

- **July 2017:** On Friday, July 7, Pennsylvania Gov. Tom Wolf approved **House Bill 424**. The legislation amends the Pennsylvania Vital Statistics Law to allow PAs to sign death certificates.
- **July 2017**: The Governor of **State of West Virginia**, signed S.B. 1014 into law allowing PAs to work with **"collaborating**" rather than "supervising" physicians, expanding PA prescriptive authority for Schedule III medications to 30 days from the current restriction of 72 hours, allows PAs to be reimbursed at the same rate as physicians and APRNs by prohibiting discrimination by insurance plans, adds an additional PA to the medical board, and authorizes PAs to **sign** an extensive list of forms that previously had to be signed by a physician, including death certificates, and eliminates the requirement for current and continuous NCCPA certification for license renewal. The law becomes effective September 2017.
- **June 2017**: **Texas** passed H.B. 2546 which allows PAs to **sign** workers' compensation forms and H.B. 919, which allows PAs to **sign** death certificates if the PA was treating the decedent for the condition which contributed to his or her death or if the decedent was receiving hospice or palliative care.
- **June 2017: The State of Illinois passed the PA Modernization Act SB1585**. **The Act replaces** references to "supervising physicians" with references to **"collaborating physicians"** throughout the Act and r**eplace**s references to "supervision agreement" with references to "**collaborative agreement**" throughout the Act.

  [Of note, the Illinois Medical Practice Act also includes the following provision:
  S*ec. 54.5. (e):*
  A physician shall not be liable for the acts or omissions of a physician assistant or advanced practice nurse solely on the basis of having signed a supervision agreement or guidelines or a collaborative agreement*, an order, a standing medical order, a standing delegation order, or other order or guideline authorizing a physician assistant or advanced practice nurse to perform acts, unless the physician has reason to believe the physician assistant or advanced practice nurse lacked the competency to perform the act or acts or commits willful and wanton misconduct.*]

- **June 2017**: The Governor of the **State of Nevada** signed Assembly Bill 199 authorizing PAs to ***sign*** and make determinations related to Provider Order for Life-Sustaining Treatment (POLST) forms. The new law allows PAs that have diagnosed a patient with a terminal condition to explain the features and procedures offered by a POLST form and to complete and execute the form. Assembly Bill 199 also authorizes a PA to revoke POLST forms if the PA determines the patient lacks the capacity to make decisions regarding the provision of life-sustaining treatment.
- **April 2017**: In **Mississippi,** new regulations were adopted by the Mississippi State Board of Medical Licensure (MSBML). Mississippi's new rules, which went into effect on April 17, made a number of significant improvements to PA licensure procedures and practice in the state, including **the removal of the physician/PA ratio.**
- **April 2017: New Mexico** passed legislation entitled *AN ACT RELATING TO THE PRACTICE OF MEDICINE; PROVIDING FOR **COLLABORATION** BETWEEN A PHYSICIAN ASSISTANT AND A LICENSED PHYSICIAN.*
- **April 2017*:* Utah** Gov. Gary Herbert recently signed SB 162 **repealing the state's requirement for PAs to have all chart entries that contain a Schedule II or III prescription co-signed by a physician**.
- **March 2017**: **Arkansas Senate Bill 136,** which was signed into law on March 9, 2017 states that PAs who are licensed by the Arkansas State Medical Board and meet specified criteria have the authority to examine, assess, and if necessary, involuntarily admit an individual who is experiencing a mental or behavioral health crisis.
- Also, in **Arkansas,** PAs will have greater authority to sign medical forms and certifications due to the enactment of House Bill 1180, which became law on March 7, 2017. Under the new law, PAs will be able to sign several documents which previously could only be signed by physicians, including:
    - Certifications of disability for parking permits or placards;
    - Forms to accompany physicals for school athletics and bus drivers;
    - Forms related to do-not-resuscitate orders;
    - Forms excusing a potential jury member for medical reasons;
    - Death certificates;
    - Workers' compensation forms;
    - Forms relating to absences from school or employment; and
    - Authorizations for durable medical equipment.
- **March 2017**: **Virginia** passed Senate Bill 1062/House Bill 1910 which became effective on July 1, 2017. The new law adds PAs to the definition of "mental health service provider" who has a duty to act when a patient threatens violence or serious harm to a third party.
- **March 2017**: **Michigan** House Bill 5533 **removes physician responsibility for PA practice**, making each member of the healthcare team responsible for their own decisions. It also r**emoves the rigid ratio restriction that arbitrarily limited the number of PAs with whom a physician may practice**. Last, the new law grants PAs more autonomy to serve patients by recognizing PAs as full "prescribers" rather than limiting their care to "delegated prescriptive authority."

States that made significant and expansive changes to PA scope of practice in **2015-2016** include:

- PAs in Maine gained full prescriptive authority through Chapter 2 joint rule making between the allopathic and osteopathic board.
- Minnesota eliminated PA to physician **ratios** in House File 1036.

- Washington State added PAs to 22 sections of the state's mental health code. Additionally, Washington also promulgated rules clarifying that PAs may exercise the same authority as physicians regarding **restraint and seclusion** of patients in private psychiatric hospitals.
- Florida joined 48 states and the District of Columbia in allowing PAs to prescribe controlled medications with HB 423 (Rx provisions effective 1/1/17).
- New Jersey removed countersignature requirements, eliminated on-site requirements and allowed for scope to be determined between PAs and physicians through S1184.
- Kentucky, with the signing of SB 154, now allows for co-signature requirements to be determined between the physician, institution or practice and the PA.

As it relates specifically to moving away from a supervisory relationship to a collaborative one, Alaska has used **"collaborative relationship**" to describe the physician-PA team for decades.

If the proposed changes were made to "approval in the medical record"/chart co-signature language, Connecticut would join other states in the Northeast region with this type of practice including Maine, Maryland, New York, Vermont, Rhode Island, Delaware and New Jersey. Each of these states has no medical chart co-signature requirements in existing statute. Other states without co-signature requirements are Alaska, Arizona, Arkansas, Washington DC, Florida, Idaho, Illinois, Kentucky, Louisiana, Maryland, Michigan, Minnesota, North Carolina, North Dakota, Ohio, Oregon, South Dakota, Texas, Washington, Wisconsin and Wyoming.

XII. Identification of any health care professions that can reasonably be anticipated to be directly impacted by the request, the nature of the impact and efforts made by the requestor to discuss the request with such health care professions:

The CSMS and other physician organizations in CT will likely have questions about these requested changes to the PA Practice Act. We have previously had conversation telephonically about our proposal with physician groups, with mixed consensus. However, ConnAPA is convinced that, with face-to-face meetings and review of the literature, we will reach consensus on the proposal as a whole. To reiterate, ConnAPA is confident in our aim and assertion that nothing that will change about the current formal relationship and day-in and day-out health care dynamic between the physician and the PA by modernizing the statute by using "collaboration" instead of "supervision". The scope of PA practice does not change with the modernized language of "collaboration" over "supervision".

With the enabling legislation for the CT APRNs passed in the past several years, ConnAPA anticipates there will be questions raised by the Connecticut APRN Society as well. We have reached out to discuss our submission with the APRNs and appreciate the input they were able to provider. However, given the evidence cited in the CTAPRN Scope of Practice Proposal *Request for Consideration of Scope of Practice Change, Connecticut APRN Society, August, 2013,* including a retrospective cross-sectional analysis of data collected from the US Veteran's Health Administration (VHA) from 2005-2010 that determined that APRN and physician assistant visits were substantially similar to those of physicians, ConnAPA again anticipates being able to reach consensus with the CT APRN Society as well.

To be clear, ConnAPA strongly emphasizes that the changes requested in this proposal do not directly or indirectly assert a request or even a consideration for independent practice authority. In addition, there is nothing in current AAPA policy that supports independent practice by PAs and no state is seeking independent practice authority outside the time-honored, collaborative partnership model between

physicians and PAs. Team practice with physicians has been a hallmark of the PA profession since its inception in the mid-1960s and continues to be true today.
The CSMS worked with ConnAPA in 2011-12 and joined the CHA and the CT AAFP affiliate in endorsing the 4th and 5th elements of the Six Key Elements as recognized by the American Academy of Physician Assistants as fundamental for a modern state PA Practice Act. In consideration of successful past consensus building experiences with the DPH, CSMS, CHA, and the CT AAFP, ConnAPA fully expects to be able arrive at consensus agreement on these current proposals.

XIII. A description of how the request relates to the health care profession's ability to practice to the full extent of the profession's education and training:

State laws have far-reaching effects on PA practice and patient access to care. These state laws governing PA practice serve two main purposes: to protect the public from incompetent performance by unqualified non-physicians and to define the role of PAs in the health care system. Since the inception of the PA profession in the mid-1960s, the way that states regulate PAs has evolved to reflect a growing body of knowledge about PA practice. It is now possible to identify the specific concepts in PA Practice Acts that enable PAs to practice fully and efficiently while protecting public health and safety.

The state of CT has made progress integrating many of these concepts into existing statute but not all. The lack of some of these key components restrict PAs from practicing to the full extent of their education and training, and delays or otherwise denies care to the CT residents they serve.

ConnAPA is eager to inform the DPH Licensing & Investigations Section and this DPH Review committee of the specific qualifications of PAs which include, but are not limited to, their education, clinical training, professional competencies, and certification and re-certification standards, thus allowing the DPH to be able to write an inclusive, factual and comprehensive report.

We have aimed to support this current proposal with a comprehensive review of the qualifications and competencies of PAs as one of the three licensed medical providers in our state. We trust the factual evidence presented will provide clarity with respect to the different, yet well-defined educational model, maintenance of certification and life-long learning of a PA that qualifies PAs to practice medicine safely and effectively for the residents of CT. The conclusions reached in the Institute of Medicine (IOM) 2010 report state, **"Scope of practice regulations in all states should reflect the full extent of not only nurses but of each profession's education and training. Elimination of barriers for all professions with a focus on collaborative teamwork will maximize and improve care throughout the healthcare system."**

In Conclusion:
ConnAPA salutes the Department of Public Health and the Public Health Committee for its unwavering efforts to improve unfettered access to high quality health care by improving efficiencies in the health care system. We respectfully request that these proposed changes to the CT PA Practice Act be thoughtfully considered and adopted.

APPENDIX
Articles on the PA Profession - Selected Topics

Quality and Outcomes of Care Provided by PAs

1. Yang, Y., Long, Q., et. al (2017). Nurse Practitioners, Physician Assistants, and Physicians Are Comparable in Managing the First Five Years of Diabetes. *The American Journal of Medicine*.

The article posits that the increased use of NPs and PAs is a potential solution to the issue of primary care provider shortages in the United States. In this specific investigation, the study found that diabetes management by NPs and PAs were similar to the treatment provided by physicians. Consequently, the researchers believe that employing NPs and PAs in broader sense may combat the shortages of providers observed in the health care setting.
http://www.amjmed.com/article/S0002-9343(17)30904-X/fulltext

2. Kurtzman, E.T., Barnow, B.S. (2017). A comparison of nurse practitioners, physician assistants, and primary care physicians' patterns of practice and quality of care in health centers. *Medical Care.*

A first-of-its-kind study found that PAs and nurse practitioners (NPs) delivered similar quality of care, services, and referrals in community health centers as physicians. Researchers at The George Washington University School of Nursing reviewed five years of data from the National Ambulatory Medical Care Survey's Community Health Center subsample and compared nine patient outcomes by practitioner type. The study could have implications for the structure of community health centers in the future.
http://journals.lww.com.lww-medicalcare/Abstract/publishahead/A_Comparison_of_Nurse_Practitioners_Physician.98777.aspx

3. Dies, N., Rashld, S., et. al (2016). Physician assistants reduce resident workload and improve care in an academic surgical setting. *Journal of the American Academy of Physician Assistants*.

The article investigates the educational demands and restricted hours of practice incurred by residents limiting the ability to provide adequate care at academic hospitals. This study sought to ascertain whether or not the employment of PAs would effect, and improve, patients eligible for discharge, resident workload, and residents perception of PAs as part of the physician and surgical team. The study concluded that PAs lessened the residents' workload and improved the residents' perception of PAs as part of surgical teams.
https://journals.lww.com/jaapa/fulltext/2016/02000/Physician_assistants_reduce_resident_workload_and. 7.aspx

4. Moote, M., Englesbe, M., Bahl, V., Hu, H.M., Thompson, M., Kubus, J. & Campbell, D., Jr. (2010). PA-driven VTE risk assessment improves compliance with recommended prophylaxis. *Journal of American Academy of Physician Assistants,* 23(6):27-35.

A PA-driven venous thromboembolism (VTE) risk assessment process resulted in a dramatic increase in the number of patients within the health system who were prescribed appropriate orders for VTE prophylaxis according to published guidelines and according to individual patient risk.
http://www.ncbi.nlm.nih.gov/pubmed/20653258 (abstract)

5. Miller, W., Riehl, E., Napier, M., Barber, K. & Dabideen, H. (1998). Use of physician assistants as surgery/trauma house staff at an American College of Surgeons-verified level II trauma center. *The Journal of Trauma: Injury, Infection, and Critical Care,* 44(2):372-376.

Utilization of a trauma surgeon-PA model resulted in a 43% decrease in transfer time to the OR, 51% decrease in transfer time to the ICU, 13% decrease in overall length of stay and 33% decrease in length of stay for neurotrauma intensive care.
http://www.ncbi.nlm.nih.gov/pubmed/9498514 (abstract)

6. Nabagiez, J.P., Shariff, M.A., Khan, M.A., Molloy, W.J., & McGinn, J.T., Jr. (2013). Physician assistant home visit program to reduce hospital readmissions*. Journal of Thoracic Cardiovascular Surgery*, 145(1):225-33.

A PA home care (PAHC) program was initiated to improve the care of patients who had undergone cardiac surgery. The 30-day readmission rate was reduced by 25% in patients receiving PAHC visits. The most common home intervention was medication adjustment, most commonly to diuretic agents, medications for hypoglycemia, and antibiotics.
http://www.jtcvsonline.org/article/S0022-5223(12)01200-7/abstract (abstract)

7. *U.S. Department of Health and Human Services, Health Resources and Services Administration.* (2016). National Practitioner Data Bank. Rockville, Maryland.

Nationally, there were 1,399 liability claims paid against PAs in the 10 years from 2005-2014. The ratio of claims to PAs averaged 1 claim for every 550 PAs (1:550). By comparison, the number of physician claims paid from 2005-2014 totaled 105,756; the ratio for physicians during that decade averaged one claim for every 80 physicians (1:80).This data can be extracted from the Data Analysis Tool on the NPDB website.
https://www.npdb.hrsa.gov/analysistool/ (Data Analysis Tool)

8. Rattray, N.A., Damush, T.M., et al. (2017). Prime movers: Advanced practice professionals in the role of stroke coordinator. *Journal of the American Association of Nurse Practitioners.*

The authors followed a stroke quality improvement clustered randomized trial and a national acute ischemic stroke directive in the VHA in 2011. The study examined the role of advanced practice providers in quality improvement activities among stroke teams. The authors conclude that the presence of PAs and NPs related directly to group-based evaluation of performance data, implementing stroke protocols, monitoring care through data audit, convening interprofessional meetings involving planning activities, and providing direct care. Further, the authors state that, because of their boundary spanning capabilities, the presence of PAs and NPs is an influential feature of local context crucial to developing an advanced, facility-wide approach to stroke care.
https://www.ncbi.nlm.nih.gov/pubmed/28440589 (abstract)

9. Virani, S.S., Akeroyd, J.M., Ramsey, D.J, et al. (2016). Comparative effectiveness of outpatient cardiovascular disease and diabetes care delivery between advanced practice providers and physician providers in primary care: implications for care under the Affordable Care Act. *American Heart Journal,* 181:74-82.

This study found that physicians and advanced practice providers provided comparable diabetes and cardiovascular disease (CVD) care quality with clinically insignificant differences. The authors conducted the research with diabetic and CVD patients in 130 Veterans Affairs facilities, and found that there is a need to improve performance regardless of provider type.
http://www.sciencedirect.com/science/article/pii/S0002870316301648 (abstract)

10. Schwarz, H. B., Fritz, J. V., Govindarajan, R., Murray, R. P., Boyle, K. B., Getchius, T. S., & Freimer, M. (2015). Neurology advanced practice providers: a position paper of the American Academy of Neurology. *Neurology: Clinical Practice*, 5(4):333-337.

PAs and NPs can conduct evaluations, prescribe medications, order and interpret testing, and perform some procedures independent of direct physician supervision. They can provide many aspects of care that neurologists currently perform, such as education of patients and families, counseling, resource management, and follow-up care. PAs and NPs have the potential to improve outcomes at a lower cost to patients and to the system by improving outpatient access, potentially reducing the need for emergency care. They also perform patient education, which may also decrease the overuse of the medical system.
https://www.aan.com/siteassets/home-page/policy-and-guidelines/policy/position-statements/neurology-advanced-practice-providers/neurology-advanced-practice-providers.pdf

11. Agarwal, A., Zhang, W., Kuo, Y., & Sharma, G. (2016). Process and outcome measures among COPD patients with a hospitalization cared for by an advance practice provider or primary care physician. *Plus One.*

Compared to patients cared for by physicians, patients cared for by PAs and APRNs were more likely to receive short acting bronchodilator, oxygen therapy and been referred to pulmonologist. Patients cared for by PAs and APRNs were less likely to visit an ER for COPD compared to patients cared for by physicians, conversely there was no difference in hospitalization or readmission for COPD between physicians and PAs/APRNs.
http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0148522

12. Liu, H., et al. (2017). The impact of using mid-level providers in face-to-face primary care on health care utilization. *Medical Care,* 55(1): 12-18.

Greater use of NP/PAs in primary care visits in the Kaiser Permanente system in Georgia was not associated with higher specialty referrals, advanced imaging, ED visits, or inpatient stays. The authors conclude that using PAs and APRNs in face-to-face primary care may be a promising primary care delivery model from an efficiency standpoint.
http://journals.lww.com/lww-medicalcare/Abstract/2017/01000/The_Impact_of_Using_Mid_level_Providers_in.3.aspx (abstract)

13. Capstack, T.M., Segujja, C., Vollono, L., Moser, J.D., Meisenberg, B.R., & Michtalik, H.J. (2016). A comparison of conventional and expanded physician assistant hospitalist staffing models at a community hospital. *Journal of Clinical Outcomes Management*, 23(10): 455-460.

The researchers found that an expanded PA hospitalist staffing model at a community hospital provided similar outcomes and a lower cost of care than a conventional one. Researchers did a retrospective study comparing two hospitalist groups at a 384-bed community hospital in Annapolis, MD. One group had an

expanded PA staffing model, with three physicians and three PAs. The other group had a "conventional" staffing model, with nine physicians and two PAs.
http://www.turner-white.com/pdf/jcom_oct16_hospitalist.pdf

14. Nestler, D.M., Fratzke, A.R, et. al (2012). Effect of a Physician Assistant as a Triage Liaison Provider on Patient Throughout in an Academic Emergency Department. *Academic Emergency Medicine*.

The article discusses overcapacity issues that routinely inhibit various emergency departments. According to this article, studies suggest that triage liaison providers (TLPs) may benefit emergency departments struggling with overcapacity by shortening a patient's length of stay (LOS). Additionally, the article posits that enabling PAs to serve in such a role, TLPs, may reduce the number of patients who leave the emergency department without being seen. The findings of this study suggest that the LOS for patients was shorter, treatment room times were shorter, and fewer patients left without being seen.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3506172/

15. Carzoli, R.P., Martinez-Cruz, M., Cuevas, L.L., Murphy, S. & Chiu, T. (1994). Comparison of neonatal nurse practitioners, physician assistants, and residents in the neonatal intensive care unit. *American Medical Association, Archives of Pediatrics and Adolescent Medicine,* 148(12):1271-1276.

Patient charts were analyzed to compare care provided in the neonatal intensive care unit by teams of resident physicians and teams of PAs and NPs. Results demonstrated no significant differences in management, outcome, or charge variables between patients cared for by the two teams.
http://archpedi.jamanetwork.com/article.aspx?articleid=517388 (abstract)

16. *Colorado Health Institute,* Collaborative Scopes of Care Advisory Committee. (2008). Final report of findings. Denver, CO. 6-7, 23-25.

Governor Ritter issued Executive Order B 003 08 establishing the Collaborative Scopes of Care Study and creating an advisory committee to oversee the conduct of an evidence-based review that would inform the study findings. In issuing this executive order, the governor acknowledged "that it is clear from health manpower studies that we do not have sufficient numbers of providers, especially physicians and dentists, to meet the current [health care] needs of Coloradans." In general, the studies reviewed found no significant differences in patient outcomes or satisfaction with the care provided by PAs when compared to physicians.
http://www.coloradohealthinstitute.org/key-issues/detail/health-care-workforce/collaborative-scopes-of-care-advisory-committee-final-report-of-findings

17. Costa, D.K., Wallace, D.J., Barnato, A.E., & Kahn, J.M. (2014). Nurse practitioner/physician assistant staffing and critical care mortality. *Chest Journal,* 146(6):1566-1573.

ICUs are increasingly staffed with NPs and PAs. The authors examined the association between NP/PA staffing and in-hospital mortality for patients in the ICU, and found NPs/PAs to be a safe adjunct to the ICU team. The findings support NP/PA management of critically ill patients.
http://www.ncbi.nlm.nih.gov/pubmed/25167081 (abstract)

18. Dhuper, S.& Choski, S. (2009). Replacing an academic internal medicine residency program with a physician assistant-hospitalist model: a comparative analysis study. *American Journal of Medical Quality,* 24(2):132-139.

This study describes a comparative analysis of replacing medical residents with PA-hospitalist teams on patient outcomes in a community hospital. Quality of care provided by the PA-hospitalist model was equivalent to resident physician provided care.
http://ajm.sagepub.com/content/24/2/132.abstract (abstract)

19. Everett, C., Thorpe, C., Palta, M., Carayon, P., Bartels, C. & Smith M.A. (2013). Physician assistants and nurse practitioners perform effective roles on teams caring for Medicare patients with diabetes. *Health Affairs, 32(11):1942-1948*.

Medicare claims and electronic health record data from a large physician group was used to compare outcomes for two groups of adult Medicare patients with diabetes whose conditions were at various levels of complexity: those whose care teams included PAs or NPs in various roles, and those who received care from physicians only. Outcomes were generally equivalent in thirteen comparisons.
http://content.healthaffairs.org/content/32/11/1942.abstract (abstract)

20. Glotzbecker, B., Yolin-Raley, D.S., DeAngelo, D.J., Stone, R.M., Soiffer, R.J., & Alyea, E. P. (2013). Impact of physician assistants on the outcomes of patients with acute myelogenous leukemia receiving chemotherapy in an academic medical center. *Journal of Oncology Practice*.

The data demonstrated equivalent mortality and ICU transfers, with a decrease in length of stay, readmission rates, and consults for patients cared for in the PA service. This suggests that the PA service is associated with increased operational efficiency and decreased health service use without compromise of healthcare outcomes.
http://jop.ascopubs.org/content/9/5/e228.full

21. Hormann, B.M., Bello, S.J., Hartman, A.R. & Jacobs, M. (2004). The effects of a full-time physician assistant staff on postoperative outcomes in the cardiothoracic ICU: 1-year results. *Surgical Physician Assistant,* 10(10): 38-41.

Despite an increased volume of patients and increase in case severity, increasing the role of PAs in a cardiothoracic ICU resulted a decreased length of stay, increased survival post-arrest and very low invasive procedure complication rate.
https://www.aapa.org/WorkArea/DownloadAsset.aspx?id=6442451072

22. Pavlik, D., Sacchetti, A., Seymour, A. & Blass, B. (2016). Physician assistant management of pediatric patients in a general community emergency department: a real world analysis. *Pediatric Emergency Care.*

Based on the outcome measure of 72-hour recidivism, PA management of pediatric patients 6 years or younger is similar to that of attending emergency physicians (EPs). In addition, this study suggests that the PAs have the ability to recognize more severely ill children and elicit the input of a supervising physician in those individuals.
https://www.ncbi.nlm.nih.gov/pubmed/27798540

23. *Peterson Center on Healthcare and Stanford Medicine Clinical Excellence Research Center*. (2016). Uncovering America's most valuable care: executive summary.

This study looked at the best primary care practices in the country and put together a list of what makes them so good. Those practices that work closely with their PAs and ensured that PAs were able to work to the full extent of their education and experience ranked the highest.
http://petersonhealthcare.org/identification-uncovering-americas-most-valuable-care/executive-summary

24. *U.S. Congress, Office of Technology Assessment.* (1986). Nurse practitioners, physician assistants, and certified nurse-midwives: a policy analysis. Health Technology Case Study 37. Washington, DC.

Within their areas of competence, PAs, NPs and CNMs provide care whose quality is equivalent to that of care provided by physicians.
http://ota.fas.org/reports/8615.pdf

25. Virani S.S., et al. (2015). Provider type and quality of outpatient cardiovascular disease care. *Journal of American College of Cardiology*, 66(16):1803-1812.

The large national study sought to determine whether there were clinically meaningful differences in the quality of care delivered by teams of physicians and PAs or NPs versus physicians-only teams. Patients with coronary artery disease, heart failure and atrial fibrillation received comparable outpatient care from physicians, PAs and NPs. There was a higher rate of smoking cessation screening and intervention and cardiac rehabilitation referral among CAD patients receiving care from PA/NPs.
http://www.ncbi.nlm.nih.gov/pubmed/26483105 (abstract)

26. Wilson, I.B., Landon, B.E., Hirschhorn, L.R., et al. (2005). Quality of HIV care provided by nurse practitioners, physician assistants, and physicians. *Annals of Internal Medicine, 143(10):729-736.*

For the measures examined, the quality of HIV care provided by NPs and PAs was similar to that of physician HIV experts and generally better than physician non–HIV experts. NPs and PAs can provide high-quality care for persons with HIV. Preconditions for this level of performance include high levels of experience, focus on a single condition, and either participation in teams or other easy access to physicians and other clinicians with HIV expertise.
http://annals.org/article.aspx?articleid=718840

27. Hooker, R.S., Nicholson J.C., & Le, T. (2009). Does the employment of physician assistants and nurse practitioners increase liability? *Journal of Medical Licensure and Discipline*, 95(2):6-16.

17 years of data compiled in the United States National Practitioner Data Bank (NPDB) was used to compare and analyze malpractice incidence, payment amount and other measures of liability among doctors, PAs and APNs. Seventeen years of observation suggests that PAs may decrease liability, at least as viewed through the lens of a national reporting system. During the first 17-year study period, there was one payment report for every 2.7 active physicians and one for every 32.5 active PAs. In percentage terms, 37 percent of physicians, 3.1 percent of PAs and at least 1.5 percent of APNs would have made a malpractice payment during the study period. The physician mean payment was 1.7 times higher than PAs and 0.9 times that of APNs, suggesting that PA employment may be a cost savings for the healthcare industry along with the safety of patients. The reasons for disciplinary action against PAs and APNs are largely the same as physicians.
http://www.paexperts.com/Nicholson%20-%20Hooker%20Article.pdf

PA Cost Effectiveness and Productivity

1. Johal, J., Dodd, A. (2017). Physician extenders on surgical services: a systematic review. *Canadian Journal of Surgery*.

The study investigated whether or not the introduction of duty hour restrictions and the ensuing house trainee shortages required a long-term solution to provide safe and efficient patient care. A proposed solution was the employment of NPs and PAs in numerous health care settings. The study found that the employment of NPs and PAs to surgical and trauma services was cost-efficient while simultaneously not sacrificing quality of care.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5453759/

2. Bachrach, D., Frohlich, J., Garcimonde, A. & Nevitt, K. (2015). The value proposition of retail clinics: building a culture of health. *Robert Wood Johnson Foundation* and *Manatt Health*.

Retail clinics are ambulatory care sites typically located in and associated with brand-name retailers, including pharmacies, groceries and "big-box" stores and are typically staffed by NPs and PAs with some physician oversight. The expertise and training of NPs and PAs is well-suited for retail settings. However, states' varying regulatory and licensure schemes constrain the ability of retail clinics to make full use of these professionals in every state. Also, the authors argue that telehealth has the potential to reduce cost and improve both access to care for rural and underserved communities and support treatment of patients with acute and chronic conditions at retail clinics and beyond.
https://www.manatt.com/uploadedFiles/Content/5_Insights/White_Papers/Retail_Clinic_RWJF.pdf

3. Eibner, C., Hussey. P., Ridgely, M.S., and McGlynn, E.A. (2009). Controlling health care spending in Massachusetts: an analysis of options. *RAND Corporation,* TR-733-COMMASS.

RAND identified a few options that appear to have the potential to slow the rate of increase in health spending in Massachusetts over the next decade. Those ideas include expanding the scope of practice of PAs and NPs and encouraging the greater use of PAs and NPs in primary care.
http://www.rand.org/pubs/technical_reports/TR733.html

4. Grzybicki, D., Sullivan, P., et. al (2002). The Economic Benefit for Family/General Medicine Practices Employing Physician Assistants.

The study sought to identify whether or not model PA practice in a family or general medicine practice environment was comparable, in terms of care provided and financial productivity, to a physician-only practice. The study found that the employment of family and/or general medicine PAs lead to significant economic benefits to the practices where they are employed.
http://www.ajmc.com/journals/issue/2002/2002-07-vol8-n7/jul02-165p613-620 (link to PDF of entire study available at this website)

5. Hooker, R.S. (2002). Cost analysis of physician assistants in primary care. *Journal of the American Academy of Physician Assistants,* 15(11):39-50.

This study examines the cost associated with employing PAs from the employer's perspective. Analysis of data on record for episode, patient characteristics, health status, etc., found that for every medical condition managed by PAs, the total episode cost was less than similar episode managed by a physician.
https://www.ncbi.nlm.nih.gov/pubmed/12474431 (abstract)

6. Hooker, R. S. (2000). The economic basis of physician assistant practice. *Physician Assistant*, 24(4): 51-71.

Cost-benefit analysis of PA-delivered primary care suggests the use of resources is less than physicians under comparable conditions. The PA compensation to production ratio establishes the PA as one of the most cost-effective clinicians to employ.
https://www.aapa.org/WorkArea/DownloadAsset.aspx?id=6442451073

7. Timmons, E.J. (2016). The effects of expanded nurse practitioner and physician assistant scope of practice on the cost of Medicaid patient care. *Health Policy*, 1-8.

The author examines how changes to occupational licensing laws for nurse practitioners and physician assistants have affected cost and intensity of health care for Medicaid patients. The results suggest that allowing physician assistants to prescribe controlled substances is associated with a substantial (more than 11%) reduction in the dollar amount of outpatient claims per Medicaid recipient. Relaxing occupational licensing requirements by broadening the scope of practice for healthcare providers may represent a low-cost alternative to providing quality care to America's poor.
http://www.healthpolicyjrnl.com/article/S0168-8510(16)30344-X/abstract (abstract)

6. Medical Group Management Association. (2016). The rising trend of nonphysician provider utilization in healthcare: an MGMA research & analysis report. Englewood, CO.

In this report, healthcare industry influencer Medical Group Management Association (MGMA) aims to help healthcare executives, practice administrators, and others understand how to incorporate PAs and nurse practitioners (NPs) into medical practice to maximize efficiency and profitability. MGMA found that 78% of better performing medical practices employ PAs and NPs. The analysis gives an overview of the PA and NP workforce, reimbursement, licensure, median salary, and state practice environments.
http://www.mgma.com/store/surveys-and-benchmarking/e-reports/the-rising-trend-of-nonphysician-provider-utilization-in-healthcare (abstract)

7. Anderson, T.J. & Althausen, P.L. (2016). The role of dedicated musculoskeletal urgent care centers in reducing cost and improving access to orthopaedic care. Journ*al of Orthopaedic Trauma,* 30(5):s1-s2.

In 2014, the authors' practice opened the first dedicated orthopaedic urgent care in the region staffed by PAs and supervised by orthopaedic surgeons. Dedicated musculoskeletal urgent care clinics operated by orthopaedic surgery practices can be extremely beneficial to patients, physicians, and the health care system. They clearly improve access to care, while significantly decreasing overall health care costs for patients with ambulatory orthopaedic conditions and injuries. In addition, they can be financially beneficial to both patients and orthopaedic surgeons alike without cannibalizing local hospital surgical volumes.
https://www.ncbi.nlm.nih.gov/pubmed/27870667

8. Pedersen D.M., Chappell, B., Elison, G. & Bunnell R. (2008). The productivity of PAs, APRNs, and physicians in Utah. *Journal of the American Academy of Physician Assistants,* 21(1):42-47.

The Utah Medical Education Council believes that the demand for PAs will be high over the next 10 to 15 years, with several factors fueling this growth. Productivity is one of these factors. Even though Utah PAs

make up only approximately 6.3% of the state's combined clinician (physician, PA, APRN) workforce; the PAs contribute approximately 7.2% of the patient care full-time equivalents (FTE) in the state. This is in contrast to the 10% FTE contribution made by the state's APRN workforce, which has nearly triple the number of clinicians providing patient care in the state. The majority (73%) of Utah PAs work at least 36 hours per week. Utah PAs also spend a greater percentage of the total hours worked in patient care, when compared to the physician workforce. The rural PA workforce reported working a greater number of total hours and patient care hours when compared to the overall PA workforce.
http://journals.lww.com/jaapa/Abstract/2008/01000/The_productivity_of_PAs,_APRNs,_and_physicians_in.10.aspx (abstract)

9. Morgan, P.A., Shah, N.D., Kaufman, J.S., & Albanese, M.A. (2008). Impact of physician assistant care on office visit resource use in the United States. *Health Services Research,* 43(5 Pt 2):1906-1922.

Analysis of Medicare's Medical Expenditure Panel Survey (MEPS) data found adult patients who saw PAs for a large portion of their yearly office visits had, on average, 16 percent fewer visits per year, than patients who saw only physicians. These findings account for adjustments for patient complexity.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2654167/pdf/hesr0043-1906.pdf

10. Althausen, P.L., Shannon, S., Owens, B., Coll, D., Cvitash, M., Lu, M., O'Mara, T.J. & Bray, T.J. (2013). Impact of hospital-employed physician assistants on a level II community-based orthopaedic trauma system. *Journal of Orthopaedic Trauma,* 27(4):e87-e91.

The indirect economic and patient care impact of PAs on the community-based orthopaedic trauma team was evaluated. By increasing emergency room pull through and decreasing times to OR, operative times, lengths of stay, and complications, PAs are clearly beneficial to hospitals, physicians, and patients.
http://journals.lww.com/jorthotrauma/Abstract/2013/04000/Impact_of_Hospital_Employed_Physician_Assistants.16.aspx

11. Essary, A.C., Green, E.P. & Gans, D.N. (2016). Compensation and production in family medicine by practice ownership. *Health Services Research and Managerial Epidemiology*, 3:1-5.

In this national survey of family medicine practices, PA productivity, as defined by mean annual patient encounters, exceeds that of both nurse practitioners (NPs) and physicians in physician-owned practices and of NPs in hospital or integrated delivery system-owned practices. Total compensation, defined as salary, bonus, incentives, and honoraria for physicians, is significantly more compared to both PAs and NPs, regardless of practice ownership or productivity. PAs and NPs earn equivalent compensation, regardless of practice ownership or productivity. Not only do these data support the value and role of PAs and NPs on the primary care team, but also highlight differences in patient encounters between practice settings.
http://journals.sagepub.com/doi/abs/10.1177/2333392815624111

12. Mafi, J.N., Wee, C.C., Davis, R.B., & Landon, B.E. (2016). Comparing use of low-value health care services among U.S. advanced practice clinicians and physicians. *Annals of Internal Medicine*, 165(4):237-244.

A comparison of NPs, PAs and physicians found that the three practitioners provided an equivalent amount of low-value health services. The purpose of the comparison was to dispel physicians'

perceptions that PAs and NPs provide lower-value care than physicians for patients presenting with upper respiratory infections, back pain, or headaches.
http://annals.org/article.aspx?articleid=2529481 (abstract)

13. Resnick, C.M., Daniels, K.M., Flath-Sporn, S.J., Doyle M., Heald, R., and Padwa, B.L. (2016). Physician assistants improve efficiency and decrease costs in outpatient oral and maxillofacial surgery. *Journal of Oral Maxillofacial Surgery, 1-8.*

The addition of PAs into the procedural components of an outpatient oral and maxillofacial surgery practice resulted in decreased costs whereas complication rates remained constant. The increased availability of the oral and maxillofacial surgeon after the incorporation of PAs allows for more patients to be seen during a clinic session, which has the potential to further increase efficiency.
http://www.joms.org/article/S0278-2391(16)30591-2/abstract (abstract)

14. Roblin, D.W., Howard, D.H., Becker, E.R., Adams, E.K. & Roberts, M.H. (2004). Use of midlevel practitioners to achieve labor cost savings in the primary care practice of an MCO. *Health Services Research,* 39(3), 607-625.

Data from twenty-six primary care practices and approximately 2 million visit records found PAs/NPs attended to 1 in 3 adult medicine visits and 1 in 5 pediatric. Primary care practices that used more PAs/NPs in care delivery realized lower practitioner labor costs per visit than practices that used fewer.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361027/

Policy, Workforce and Access to Care

1. Leach, B., Gradison, M., et. al (2017). Patient preference in primary care provider type. *Healthcare Journal*.

The study investigates the growing role of NPs and PAs which has enabled patients to choose their primary care provider. This begs the question as to whether or not there is any preference in what medical professional a patient wishes to see. The study concluded that the provider's qualifications and the patient's prior health care experiences were determinative. However, the study did find that physicians were preferred for their technical skills as opposed to PAs and NPs who were favored for their interpersonal skills.
https://www.ncbi.nlm.nih.gov/pubmed/28602803 (abstract)

2. Dill, M., Pankow, S. et. al (2013). Survey Shows Consumers Open To A Greater Role For Physician Assistants And Nurse Practitioners. *Health Affairs*.

Evidence suggests that there is an impending physician shortage in the United States. Should the shortage come to fruition, alternative providers, like PAs and NPs, may become necessary to meet health care demands. The survey conducted in this study investigates whether or not there is a health care provider preference among patients seeking treatment. The study found that approximately half of those surveyed desired to have a physician as their primary care provider. However, when the preference was inquired into with varying hypotheticals and circumstances enabling the patient to be seen by a PA or NP more quickly, a majority of those surveyed decided to see a PA or NP. Consequently, it appears that health care consumers are at least open to the idea of receiving treatment from NPs and PAs.
https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2012.1150

3. Hooker, R.S., Everett, C.M. (2012). The Contribution of Physician Assistants in Primary Care Systems. *Health & Social Care in the Community*.

The potential shortages of primary care physicians are a rising global trend. A possible solution to the decrease in available primary care physicians but similar health care demands is the employment of PAs. Studies conducted, globally, insinuate that PAs can bridge the shortage by providing primary care functions; including the provision of comprehensive care while not sacrificing accountability or accessibility.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3903046/

4. Sutton, J.P., Ramos, C., & Lucado, J. (2010). US physician assistant (PA) supply by state and county in 2009. *Journal of the American Academy of Physician Assistants,* 23(9):e5-e8.

Substantial variation exists in the PA-to-population ratio among states, which may be related in part to state practice laws. At a more local level, counties without PAs are more likely to be rural than counties with PAs. States with more favorable laws governing PA practice have a higher PA-to-population ratio. The distribution of PAs is likely to remain geographically uneven in the absence of significant policy efforts to attract PAs to practice in rural communities.
http://journals.lww.com/jaapa/Abstract/2010/09000/US_physician_assistant__PA__supply_by_state_and .18.aspx (abstract)

5. Salsberg, E. (2015). Is the physician shortage real? Implications for the recommendations of the Institute of Medicine Committee on the governance and financing of graduate medical education. *Academic Medicine*, 90(9):1210-1214.

Increased use of PAs, NPs and pharmacists will decrease the impact of the predicted physician shortage. Concerns that quality will be reduced with the use of these clinicians are unfounded for a variety of reasons, including the increasing focus on safety, high professional, educational and credentialing standards and the increase of team-based care which has the potential to allow for better use of the skills of each member of the team, including the physicians.
http://journals.lww.com/academicmedicine/Fulltext/2015/09000/Is_the_Physician_Shortage_Real__Implications_for.17.aspx

6. Green, L.V., Savin, S. & Lu, Y. (2013). Primary care physician shortages could be eliminated through use of teams, nonphysicians, and electronic communication. *Health Affairs,* 32(1):11-19.

Most existing estimates of the shortage of primary care physicians are based on simple ratios, such as one physician for every 2,500 patients. These estimates do not consider the impact of such ratios on patients' ability to get timely access to care. They also do not quantify the impact of changing patient demographics on the demand side and alternative methods of delivering care on the supply side. The authors provide estimates of the number of primary care physicians needed based on a comprehensive analysis considering access, demographics, and changing practice patterns. They conclude that some increasingly popular operational changes in the ways clinicians deliver care—including the use of teams or "pods," better information technology and sharing of data, and the use of PAs and other providers—have the potential to offset completely the increase in demand for physician services while improving access to care, thereby averting a primary care physician shortage.
http://m.content.healthaffairs.org/content/32/1/11.full.html

7. Timmons, E.J. (2016). Healthcare license turf wars: the effects of expanded nurse practitioner and physician assistant scope of practice on Medicaid patient access. Mercatus Working Paper, *Mercatus Center at George Mason University*, Arlington, VA.

The author examines how important changes to occupational licensing laws for nurse practitioners and PAs have affected cost and access to healthcare for Medicaid patients. The results suggest that allowing PAs to prescribe drugs (including controlled substances) is associated with a substantial (more than 11 percent) reduction in the dollar amount of outpatient claims per Medicaid recipient. Relaxing occupational licensing requirements by broadening the scope of practice for healthcare providers may represent a low-cost alternative to providing quality care to America's poor.
https://www.mercatus.org/system/files/Timmons-Scope-of-Practice-v2.pdf

8. Hooker, R.S. & Muchow, A.N. (2015). Modifying state laws for nurse practitioners and physician assistants can reduce cost of medical services. *Nursing Economic$,* 33(2):88-94.

A cost analysis was undertaken to determine how changing restrictive practice laws would impact the cost of care. The authors' case study focused on the state of Alabama because of its restrictive PA and NP laws. The cost analysis found that even modest changes to Alabama PA and NP laws would result in a net savings of $729 million over a 10-year period. Underutilization of PAs and NPs by restrictive state law inhibits the cost benefits of increasing the supply of PAs and NPs.
http://www.nursingeconomics.net/necfiles/14ND/Hooker.pdf

9. Hamel, L., Norton, M., Jankiewicz, A., & Rousseau, D. (2015). Experiences and attitudes of primary care practitioners after the ACA in Kaiser Family Foundation/Commonwealth Fund 2015 national survey of primary care providers. *Journal of the American Medical Academy,* 314 (19):2013.

Based on a survey of primary care clinicians in early 2015, this Visualizing Health Policy infographic examines the experiences and attitudes of primary care practitioners (PCPs) after the Affordable Care Act's (ACA's) major coverage provisions took effect in January 2014. Generally, primary care physicians have a more negative view of health reform's effect on the cost of patient care, but a more positive view of the law's impact on patient access to healthcare and insurance. Large shares—66% of nurse practitioners and physician assistants and 50% of physicians—report that they're currently accepting new Medicaid patients.
http://jamanetwork.com/journals/jama/fullarticle/2470432

10. Hing, E. & Hsiao, C. (2015). In which states are physician assistants or nurse practitioners more likely to work in primary care? *Journal of the American Academy of Physician Assistants*, 28(9):46-53.

After controlling for practice characteristics, higher use of PAs and NPs was found in three states (Minnesota, Montana, and South Dakota). Higher availability of PAs or NPs was associated with favorable PA scope-of-practice laws.
http://www.ncbi.nlm.nih.gov/pubmed/26302324 (abstract)

11. *IHS Inc.* (2016). The complexities of physician supply and demand 2016 update: projections from 2014 to 2025. Prepared for the *Association of American Medical Colleges*. Washington, DC: *Association of American Medical Colleges*.

This 2016 report examines five scenarios commonly expected to affect physician supply (e.g., early or delayed retirement of physicians) and six scenarios expected to affect the demand for physician services

over the next decade (e.g., changing demographics, greater adoption of managed care models, or greater integration of advanced practice registered nurses and PAs). The U.S. could experience a shortfall of between 14,900 and 35,600 primary care physicians by 2025.
https://www.aamc.org/download/458082/data/2016_complexities_of_supply_and_demand_projections.pdf

12. Jones, P.E., & Hooker, R.S. (2001). Physician assistants in Texas. *Texas Medicine*. 97(1): 68-73.

The use of PAs in the state has helped address the maldistribution of physicians. PAs have high productivity and increase the number of patients being seen in a wider variety of healthcare settings.
https://www.ncbi.nlm.nih.gov/pubmed/11192487 (abstract)

13. Mitchell, C.C., Ashley, S.W., Zinner, M.J., & Moore, F.D. (2007). Predicting future staffing needs at teaching hospitals. *Archives of Surgery,* 142, 329-334.

The study used a computer model to predict future staffing needs due to the impact of changes in resident work hours and service growth. The study estimates in the next 5 years the hospitals will need to hire 10 PAs at the cost of $1,134,000, which is $441,000 less expensive than hiring hospitalist physicians.
http://archsurg.jamanetwork.com/article.aspx?articleid=400017

14. Morgan, P., Himmerick, K.A., Leach, .B, Dieter, P. & Everett, C. (2016). Scarcity of primary care positions may divert physician assistants into specialty practice. *Medical Care Research and Review,* 1-14.

Despite state and federal efforts to encourage PAs to help fill primary care gaps, the proportion of PAs practicing in primary care continues to decline. Using job posting data from a leading labor analytics firm, this study finds that the decline could be due to a lack of job availability. In 2014, for example, only 18 percent of PA job postings were in primary care, compared with specialty positions. While policies have focused on increasing primary care PA supply, additional efforts are needed to increase labor demand via financial incentives, job-locating assistance and educational outreach.
http://healthforce.ucsf.edu/publications/scarcity-primary-care-positions-may-divert-physician-assistants-specialty-practice

15. Willis, J. B. (1993). Barriers to PA practice in primary care and rural medically underserved areas. *Journal of the American Academy of Physician Assistants,* 6(6):418–422.

State imposed limits on PA practice impact the PA workforce. In 1989 Montana authorized prescriptive authority for PAs and by 1991 the number of PAs in Montana increased nearly three-fold. Initiation of prescriptive authority for Texas PAs saw a three-fold increase in the number of PAs practicing in rural areas.