(ConnAPA)

ConnAPA Scope of Practice Request[1]

Date: August 15, 2017
Submitted to: The State of Connecticut Department of Public Health
By: The Connecticut Academy of Physician Assistants Government Affairs Committee

[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

TABLE OF CONTENTS

On behalf of 2457 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.

(1) <u>A plain language description of the request;</u>

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]) that support adaptable collaboration requirements. These 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.

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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 30, 2017.

[3] *Guidelines for State Regulation of PAs (2017),* American Academy of PAs, http://news-center.aapa.org/wp-content/uploads/sites/2/2017/06/Guidelines_for_State_Regulation_2017-A-07-FINAL.pdf , accessed July 30, 2017.

[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 30, 2017.

> "*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.

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" 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*.[12]

-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.[13]
-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, which the physician and PA must each review sign on a yearly basis, 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. ELIMINATE THE PHYSICIAN/PA RATIO PROVISION to allow the decision of appropriate ratios to be determined at the practice level. This decision should be made based on available resources, services being provided, and capabilities of the practitioners, allowing for more flexible deployment of all members of the health care workforce in a variety of settings.

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 continues to grow faster than supply leading to a projected total physician shortfall of between

[12] http://legal-dictionary.thefreedictionary.com/respondeat+superior

[13] *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.

61,700 and 94,700 physicians by 2025. As with the 2015 projections, under every combination of scenarios modeled, an overall physician shortage is projected."[14] Meanwhile, the Bureau of Labor and Statistics (BLS) predicts a 30% growth in employment for PAs through 2024. [15] Improving access to medical care provided by PAs can help meet growing patient demand in the face of a physician shortage.

At the state level, Connecticut is experiencing many of the same challenges reflected in the national data. The SustiNet Healthcare Workforce Task Force report,[16] 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[17] 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.[18] In 2011, the Connecticut Department of Health's report on Health Care for Connecticut's Underserved Populations identified 104 designated Health Profession Shortage Areas. [19] 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.) [20]

[14] IHS Inc., *The Complexities of Physician Supply and Demand 2016 Update: Projections from 2014 to 2025*, April 5, 2016, https://www.aamc.org/download/458082/data/2016_complexities_of_supply_and_demand_projections.pdf. Accessed July 30, 2017.

[15] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2016-17 Edition*, Physician Assistants, on the Internet at https://www.bls.gov/ooh/healthcare/physician-assistants.htm accessed July 29, 2017.

[16] 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.

[17] Articles and Reports on the PA Profession: Selected Topics, American Academy of PAs, February 2017. https://www.aapa.org/wp-content/uploads/2017/02/f-833-4-8250125_onv7TvpD_Bibliography_on_the_PA_Profession_2-2017.pdf, accessed July 30, 2017.

[18] 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.

[19] 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.

[20] 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

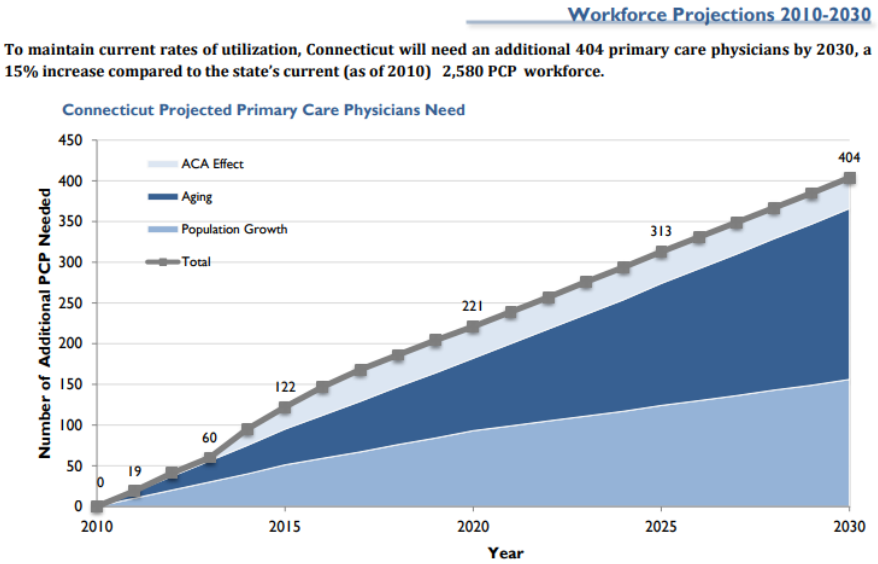

FIGURE 1

According to the National Commission on Certification of Physician Assistants (NCCPA), only 15.8% of the certified PAs in the state of Connecticut practice in Primary Care.[21] In another report released by NCCPA, there appears to be a gross mal-distribution of PAs within CT, **ranking the state last in the US in terms of utilization of PAs in primary care settings**.[22] 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.

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(2) <u>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;</u>

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

[21] *2015 Statistical Profile of Certified Physician Assistants by State*, National Commission on Certification of Physician Assistants 2015, https://www.nccpa.net/Uploads/docs/2015StatisticalProfileofCertifiedPhysicianAssistantsbyState.pdf, accessed July 30, 2017.

[22] *2015 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, Inc. (2016, March), http://www.nccpa.net/Uploads/docs/2015StatisticalProfileofCertifiedPhysicianAssistants.pdf, accessed July 30, 2017.

locations, authorizing PAs 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."[23]

The word "supervise" no longer accurately depicts the professional relationship between PAs and physicians and diminishes the role PAs currently place in the healthcare workforce. The antiquated terminology has led to variable interpretations of statue, 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 Figure 2, Figure 3, and Figure 4.) Therefore, adopting the language of "collaboration" in statute would provide clarity and understanding to the professional relationship between physicians and PAs, which is already occurring in team-based practice.

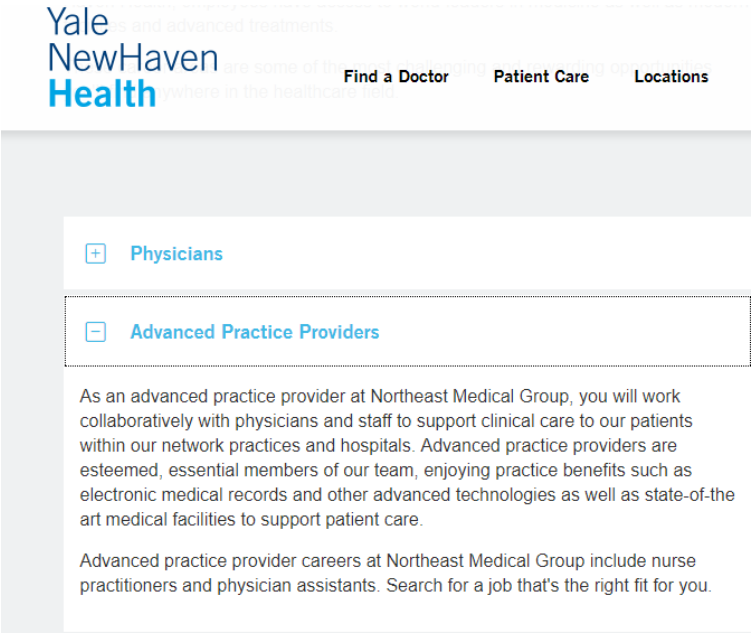

FIGURE 2 [24]

[23] *"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 30, 2017.

[24] https://www.ynhhs.org/careers/nemg/career-areas.aspx, accessed July 30, 2017.

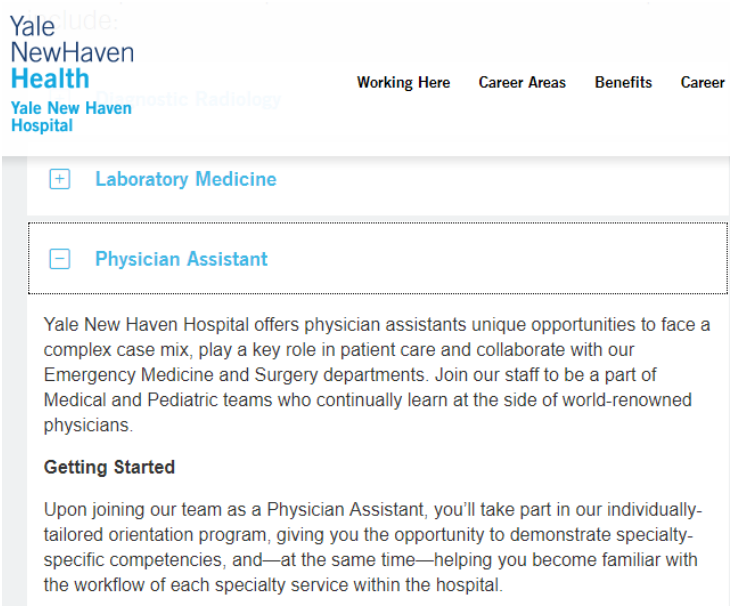

FIGURE 3 [25]

FIGURE 4 [26]

The consequences of not adopting the adaptive collaboration requirements would be a lost opportunity for a universal understanding of the role PAs can play on the health care team, perhaps limiting

[25] https://www.ynhh.org/careers/career-areas/other-clinical-professionals.aspx, accessed July 30, 2017.

[26] https://www.stvincents.org/health-professionals/multispecialty-group/for-med-professionals, accessed July 30, 2017.

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. Even when practicing in collaboration with a physician, PAs are responsible for the care they provide. Physicians should not be held liable for the acts of the PA, simply for having entered into a collaboration agreement with a PA. As fewer physicians own their medical practices[27, 28]and are subsequently becoming employed themselves, the model of PAs working as employees of the physician has become less common. 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 for 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.

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[29], 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

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

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

[29] State of Connecticut Department of Public Health Licensing Requirements>Continuing Education http://www.ct.gov/dph/cwp/view.asp?a=3121&q=558528, accessed July 30, 2017.

"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."

utilized 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.[30]

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. This agreement is reviewed and signed by both the physician and the PA on a yearly basis. 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 a 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. ELIMINATE THE PHYSICIAN/PA RATIO PROVISION to allow the decision of appropriate ratios to be determined at the practice level.

The benefit of eliminating the legislated physician/PA ratio **would allow practices flexibility and adaptability based on resources and capabilities**. Currently, CT statute specifies that a physician may collaborate with a maximum of six PAs. A specific number should not be included in the law, because decisions about the appropriate number of PAs that a physician can collaborate should be made at the practice level. A multitude of factors unique to each practice will dictate the suitable ratio of PAs to a physician (i.e. types of medical or surgical services being provided, the training and experience of the PAs, the complexity of the patient population, and the institutional approach to collaboration between providers (i.e., PAs, APRNs, Residents) with physicians. Thus, the appropriate ratio may vary widely and should not be legislated.

The consequences of not eliminating the ratio is that practices might have 7 experienced and highly-functioning PAs to deploy, but, on any given day, would only be able to use 6 due to the restriction. Perhaps the practice has the adequate number of exam rooms, but turns away patients due to the inability to use their entire team due to the restriction, or turns away a quality PA candidate after hiring 6 and turns to APRNs in any number to add to the practice to meet the rule. The number is arbitrary and does not serve the public by limiting access and flexibility at the practice level.

In a 2010 article in the Annals of Emergency Medicine (Volume 55, Issue 2, Pages 133-141, February), a study evaluating ED wait times nationally "found that hospital EDs perform fairly poorly in seeing acutely ill patients within the time recommended by the triage nurse and in keeping ED visits for admitted patients within 4 or 6 hours. Less than one fifth of EDs were able to treat at least 90% of their

[30] 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.

emergent or urgent patients (those triaged to be treated in an hour or less) within an hour; only half kept the ED visit shorter than 6 hours for at least 90% of their admitted patients." This article cites staffing as one of the throughput items that delays smooth passage of patients through the ED.

There is no doubt that crowded emergency rooms, delays in treatment and understaffing adversely affects both the quality of care delivered and ultimately the overall health of the community. It is not hard to extrapolate or make similar comparisons of this example to any busy clinical setting. Current legislation in Connecticut limits supervision by or collaboration with a physician to six full time equivalent PAs. It is clear that addressing this barrier to care is low hanging fruit. Amending the language would, in essence, put more qualified "boots on the ground" and would go a long way to improve quality of health care delivery in Connecticut. Finally, throughout the current 50 years of the PA profession, there remains no evidence to suggest that states without supervision ratios provide any less quality care compared to states that limit the number of PAs a physician may supervise.

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(3) The impact that the request will have on public <u>access to health care</u>;

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 <u>improved access, higher quality and more cost effective care</u> to patients and assure that their health care needs are served and protected. CT PAs practice medicine with nearly identical clinical roles and responsibilities as APRNs and often with APRNs as colleagues in the same clinic, hospital or other health care facility. Along with our physician colleagues, PAs and APRNS 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.

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.

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 II 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. AMEND RATIO PROVISION

By eliminating the restriction on the number of PAs any one physician may supervise, Connecticut will remove a barrier that stands in the way of increasing access to care. An article in the *Journal of the American College of Surgeons* (2011, 212 991-999) states that there will not be enough physicians, PAs and APRNs to meet the demands that will be made of health care professions by 2025. Clearly any state that is unable to grow its population of clinicians to meet this looming tidal wave of health care demands will risk much including:

-Overall delays in treatment

-Higher cost to the community because of deferred care

-Heightened patient dissatisfaction and the associated liability risks that ensue
-Increased dissatisfaction of practitioners because of unmanageable workloads
By allowing practices, rather than the state, determine the appropriate number of PAs per physician, Connecticut's practitioners will have more flexibility to address these concerns.

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(4) 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.

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(5) 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.

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(6) All current education, training and examination requirements and any relevant certification requirements applicable to the health care profession making the request;

Education/Training
Physician assistants practice medicine 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 227 PA programs accredited in the United States, with 23 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.

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.

Accredited PA Programs in the State of Connecticut

Currently, the state of Connecticut has five PA Programs that make up the **CT PA Educational Consortium.** The **CT PA Educational Consortium** comprised of the CT universities below fully support ConnAPA Proposal and will be requesting to join the DPH Review committee if the proposal is chosen for review.

Yale University School of Medicine PA Program: https://medicine.yale.edu/pa/

Quinnipiac University School of Health Sciences:

https://www.qu.edu/school-of-health-sciences/graduate-programs/master-of-health-science-physician-assistant/faq/

University of Bridgeport PA Program:
http://www.bridgeport.edu/academics/graduate/physician-assistant-ms/

Sacred Heart University PA Program:
http://www.sacredheart.edu/academics/collegeofhealthprofessions/academicprograms/physicianassistant/

St Joseph's University PA Program:
http://www.usj.edu/academics/schools/school-of-health-natural-sciences/physician-assistant/

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(7) 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;

2017

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

Physician Assistants 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)

Physician Assistants given authority to counsel patients and administer Hepatitis C vaccine (SB 257, PA 14-203)

2013

Physician Assistant authority included in and outlined in medical spa legislation (bill was vetoed; SB 1067, PA 13-284)

2012

Legislation to extend the deadline for examination of fluoroscopy requirements by physician assistants (HB 6618, Public Act, 11-242)

Significant update to the Scope of Practice of Physician Assistants (HB 5515, PA 12-37)

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(8) 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 attempted to reach out to various physician organizations including the CT State Medical Society (CSMS) but busy summer schedules have up-ended plans for face to face meetings. ConnAPA is currently working to meet with the CSMS, the CHA, and any other potential stakeholder who wishes to meet.

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.

b. ALLOW PAs TO PRACTICE TO THE FULL EXTENT OF THEIR EDUCATION AND TRAINING 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. Collaboration agreements would continue to be reviewed annually by the PA and collaborating 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 initiation 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.

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(9) 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.

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(10) 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.

2016-2017 State Legislative Changes for PA Practice

In recent years, many states have been updating their laws and regulations to expand PA scope of practice, with 2017 showing a continuous trend towards positive changes to the regulatory environment for PA practice, with three states adopting "collaboration" 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** which now awaits the Governor's signature. **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:

  > *Sec. 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.*
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- **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 will become 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 **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.

ConnAPA is not the only organization that believes the appropriate **ratio** should be determined at the practice level. The American College of Emergency Physicians (ACEP), the American College of Physicians (ACP), the Federation of State Medical Boards all have guidelines, policies, acts, or recommendations that either intentionally do not include a specific ratio or purposely state that the ratio should be determined at the practice level.

By comparison, fourteen states have no ratio restrictions, including nearby Massachusetts, Vermont, Rhode Island and Maine, along with Alaska, Arkansas, Michigan, Mississippi, Minnesota, Montana, New Mexico, North Carolina, North Dakota, and Tennessee

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.

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(11) 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. 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. 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 element 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.

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(12) 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.

These concepts inform the "*Six Key Elements of a Modern PA Practice Act"* and *"AAPA Model State Legislation for PAs"* that should be in every state's PA Practice Act so that physician-PA teams can care for patients as effectively and efficiently as possible. The state of CT has made progress integrating many of these concepts into existing statute but not all. The lack 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.

Respectfully Submitted,

Deanna J.C. Zimkus, MHS, PA-C
ConnAPA President 2017-2018
&
The ConnAPA Legislative Committee

APPENDIX

Articles on the PA Profession - Selected Topics

Quality and Outcomes

1. 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. *Pediatrics Adolescent Medicine,* 148(12):1271-1276.
Patient charts were analyzed to compare care provided in the neonatal intensive care unit (ICU) by teams of resident physicians and teams of physician assistants (PAs) and nurse practitioners (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)

2. 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)

3. Christine Everett et al., (2013) *Physician Assistants And Nurse Practitioners Perform Effective Roles On Teams Caring For Medicare Patients With Diabetes*, 32 HEALTH AFF.1942
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)

4. Brett E. Glotzbecker, MD, Deborah S. Yolin-Raley, PA-C, Daniel J. DeAngelo, MD, PhD, Richard M. Stone, MD, Robert J. Soiffer, MD, and Edwin P. Alyea III, MD Impact of Physician Assistants on the Outcomes of Patients With Acute Myelogenous Leukemia Receiving Chemotherapy in an Academic Medical Center. *Journal of Oncology Practice* June 2013.
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 health care outcomes.
http://jop.ascopubs.org/content/9/5/e228.full 2

5. Hooker, RS, Nicholson JC Le T. Does the employment of physician assistants and nurse practitioners increase liability? *J Med Licensure and Discipline*. 2009;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 advanced practice nurses (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 health care industry along with the safety of patients. The reasons for disciplinary action against PAs and APNs are largely the same as doctors.
http://mss.fsmb.org/FSMBJournal/V95/Vol95N2.pdf

6. Horman, 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.apspx?id=6442451072

7. 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)

8. 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)

9. John P. Nabagiez, MD, Masood A. Shariff, MD, Muhammad A. Khan, MD, William J. Molloy, PA-C, Joseph T. McGinn, Jr, MD. Physician assistant home visit program to reduce hospital readmissions. *J Thorac Cardiovasc Surg* 2013;145:225-33
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/fulltex 3

10. 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

11. Virani et al. (2015). Provider type and quality of outpatient cardiovascular disease care. *Journal of American College of Cardiology*, 66(16), 1803-12.
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)

12. Wilson IB, Landon BE, Hirschhorn LR, et al. Quality of HIV care provided by nurse practitioners, physician assistants, and physicians. *Ann Intern Med. (2005) 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. Nurse practitioners 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

Cost Effectiveness and Productivity
1. Peter L. Althausen, MD, MBA,Steven Shannon, BS,Brianne Owens, MD,Daniel Coll, PA-C, Michael Cvitash, PA-C, Minggen Lu, PhD,Timothy J. O'Mara, MD, Timothy J. Bray, MD Impact of Hospital-Employed Physician Assistants on a Level II Community-Based Orthopaedic Trauma System *J Orthop Trauma* Volume 27, Number 4, April 2013
The indirect economic and patient care impact of PAs on the community-based orthopedic 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://www.researchgate.net/publication/228066130_Impact_of_Hospital-Employed_Physician_Assistants_on_a_Level_II_Community-Based_Orthopaedic_Trauma_System

2. 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.aapa.org/WorkArea/DownloadAsset.aspx?id=6442451074 4

3. Hooker, R. S. (2000). The economic basis of physician assistant practice. *Physician Assistant*, 24, 67.
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

4. 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

5. Pedersen DM; Chappell B; Elison G; Bunnell R. The productivity of PAs, APRNs, and physicians in Utah. JAAPA. 2008; 21(1):42-4, 47 (ISSN: 1547-1896). University of Utah Physician Assistant Program, Salt Lake City, USA.
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, advanced practice registered nurse [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://www.medscape.com/medline/abstract/18232563 (abstract)

6. 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 less.
http://www.ncbi.nlm.nih.gov/pubmed/15149 5

Public Policy, Workforce and Access to Care

1. Hooker, R.S. and Muchow, A.N. Modifying State Laws for Nurse Practitioners and Physician Assistants Can Reduce Cost Of Medical Services. *Nursing Economics.* Mar-April 2015; 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

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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.
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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.
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Substantial variation exists in PA-to-population ratio among states related in part to state practice laws. At a 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. Distribution of PAs is likely to remain geographically uneven in absence of significant policy efforts to attract PAs to practice in rural communities.
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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.
May 2016

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