



THE CONNECTICUT ACADEMY OF PHYSICIAN ASSISTANTS

**ConnAPA Submission for Scope of Practice Requests to
the Department of Public Health pursuant to sHB6549**

**AN ACT CONCERNING THE DEPARTMENT OF PUBLIC HEALTH'S OVERSIGHT RESPONSIBILITIES
RELATING TO SCOPE OF PRACTICE DETERMINATIONS FOR HEALTH CARE PROFESSIONS.**

**By:
The Connecticut Academy of Physician Assistants Government Affairs Committee**

August 15, 2011

**AN ACT CONCERNING THE DEPARTMENT OF PUBLIC HEALTH'S OVERSIGHT RESPONSIBILITIES
RELATING TO SCOPE OF PRACTICE DETERMINATIONS FOR HEALTH CARE PROFESSIONS.**

sHB6549 / File No. 887

Approved by the Legislative Commissioner June 2, 2011

Be it enacted by the Senate and House of Representatives in General Assembly convened:

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.

Background:

The Connecticut Academy of Physician Assistants (ConnAPA) is the professional society that represents all physician assistants (PAs) in Connecticut. PAs are licensed healthcare professionals who practice medicine with physician supervision. PAs care for patients across the age continuum from pediatric to geriatric populations in primary care and in all medical and surgical specialties in all 50 states, the District of Columbia, Guam, the armed forces, and the federal services.

ConnAPA serves as the collective voice for over 1600 PAs practicing in Connecticut. A major component of our mission is to provide accessible, high quality, cost-effective healthcare to all Connecticut residents we serve. We accomplish this by working in partnership with our supervising physician colleagues.

(A) A plain language description of the request;

The American Academy of Physician Assistants (AAPA) has identified the *Six Key Elements* of a modern state PA Practice Act. The AAPA and ConnAPA along with the Connecticut State Medical Society (CSMS) are working together to convince the Public Health Committee and the Department of Public Health to amend the CT PA Practice Act to include those *Key Elements* that are currently lacking from it.

The AAPA, ConnAPA, and CSMS believe that action to amend the current CT PA Practice Act to include ALL *Six Key Elements* will ultimately lead to an improved health care system in CT.

Therefore, ConnAPA requests that the CT PA Practice Act be amended to include the following three of the *Six Key Elements*:

1. Amend Ratio Provision

By deleting the ratio provision of the number of PAs a physician can supervise, we would be able to offer Connecticut residents increased access to care in all medical and surgical settings.

Currently, CT statute specifies that a physician may supervise 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 supervise simultaneously 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 services being provided, the training and experience of the PAs, the complexity of the patient population, and the supervisory approach of the supervising physician(s)].

Any number specified in state law may be too many PAs for some situations and too few PAs in other situations. Six may be an appropriate number in many clinical settings; but in a trauma surgery case it may be appropriate for a physician to supervise only one PA, although current law would allow six. On the other hand, if a physician at a well child clinic supervises six PAs during the week, and wants to hire two additional PAs to see patients every other Saturday, that physician would be prohibited from doing so according to current state law.

Ideally, the language defining the ratio of PAs to a supervising physician should be deleted from statute and not determined by state-wide authorities but rather by each individual practice and each physician-PA team. The Medical Examining Board would still have full authority to discipline a physician who is improperly supervising PAs.

ConnAPA is not the only organization that believes the appropriate ratio should be determined at the practice level. The American Academy of Family Physicians (AAFP), the American Medical Association (AMA), the American Academy of Physician Assistants (AAPA), the American College of Physicians (ACP), and 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, eight states have no ratio restrictions, including nearby Rhode Island and Maine, along with Alaska, Arkansas, New Mexico, North Carolina, North Dakota, and Tennessee. For current statute and suggested model legislation, see Appendix A. For more information on why the appropriate number of PAs should be determined at the practice level rather than in state law, see the Issue Brief in Appendix B.

2. Amend Supervision Language

By modifying current supervision language, we would be able to offer Connecticut residents more efficient and effective care.

Current statute states that the supervising physician must do a personal review of the PA's practice at least weekly or more frequently as necessary to ensure quality patient care. The words "at least weekly or more frequently" should be deleted. Appropriate methods of supervision should be customizable by the supervising physician based on several factors which are unique to each practice, including the practice setting, the types of patient care seen in the practice, and the skills and experience of the PA(s).

Requiring specific methods of supervision in state laws, such as weekly face-to-face meetings and requiring all charts to be reviewed within a certain time frame, uses a one-size-fits-all approach to physician-PA teams that work in extremely diverse practices. By putting the primary decision-making authority in the hands of the supervising physician, who is in the best position to determine which methods of supervision are most appropriate, the physician-PA team will be able to provide more efficient and effective patient care. Hospitals and other medical facilities would still have the authority to customize supervision methods for each PA.

The physician community also supports this type of language, as can be seen in the "Guidelines for Physician/PA Practice", which were adopted by the AMA House of Delegates. These guidelines state that:

- The role of the PA in the delivery of care should be defined through mutually agreed upon guidelines that are developed by the physician and the PA and based on the physician's delegatory style.
- The physician must be available for consultation with the PA at all times either in person or through telecommunication systems or other means.
- The physician is responsible for clarifying and familiarizing the PA with his supervising methods and style of delegating patient care.

Examples of states in our area that have adaptable supervision language in existing statute are Massachusetts, Maine, Maryland, New Hampshire, New York, and Rhode Island. Others areas are California, D.C., Hawaii, Michigan, Minnesota, North Dakota, South Dakota, Utah, and Wyoming. For current statutes and suggested model language, see Appendix C. For more information on why the appropriate level of supervision should be determined at the practice level, see the Issue Brief in Appendix D.

3. Amend Chart Co-Signature Requirements

By modifying current chart co-signature language, we would be able to maximize efficiency in the delivery of patient care for Connecticut residents.

Currently, supervising physicians must document approval of ALL prescriptions and orders of Schedule II and III drugs, even in routine cases. ConnAPA would like to allow decisions about when physician co-signature should be used to be made at the practice level, so that physician-PA teams can maximize efficiency in the delivery of patient care.

Requiring co-signature in these instances routinely places an unnecessary time burden on physicians and PAs. Physicians are already required to exercise oversight of PA practice and are free to delegate prescriptive authority to a PA based on that PA's level of competence. When a supervising physician chooses to delegate prescriptive authority for Schedule II and III controlled substances, that supervising physician is making a determination that the PA is competent to determine when those medications are medically necessary. The physician's choice to delegate that authority serves as a de facto approval of future executions of that authority by the PA. Therefore, requiring a co-signature each time the PA exercises that authority is redundant.

While both PAs and supervising physicians may want to review certain cases where patients are prescribed Schedule II or III medications, decisions about which cases to review should be made at the practice level. A requirement in state law for physicians to review every chart for patients prescribed a Schedule II or III medication by a PA can cause inefficiencies in patient care delivery. Strict co-signature requirements place a constraint both on the amount of time for actual quality physician oversight of the PA and on the amount of time for physician-patient interaction.

If the proposed changes are made to chart co-signature language, Connecticut would join other states in the Northeast region with this type of practice including Maine, Maryland, New York, and Rhode Island. Each of these states has no medical chart co-signature requirements in existing statute. Other states without co-signature requirements are Alaska, Arkansas, Florida, Idaho, Michigan, Minnesota, New Mexico, North Carolina, North Dakota, Ohio, Oregon, South Dakota, Wisconsin, and Wyoming. For current statute and proposed model language, please see Appendix E. For more information on why chart co-signature is something that should be determined at the practice level and not in state law, see the Issue Brief in Appendix F.

(B) Public health and safety benefits that the requestor believes will be achieved should the request be implemented and, if applicable, a description of any harm to public health and safety should the request not be implemented;

Ratio Provision:

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 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.

Additionally, one of the lowest rated metrics identified in patient surveys is the lack of time spent with the provider. Complaints in this area lead to poor practitioner- patient relationships, inaccurate communications and increased risk of liability. In an article reported by the *Journal of the American Medical Association* patients of physicians using physician assistants in their practices were surveyed to determine attitudes toward PAs. Patients rated the physician assistants highly in terms of technical competence (89%) and professional manner (86%), and report cited improvements in the quality of care (71%) and access to services (79%) since the physician assistants began working.

JAMA. 1974;228(1):63-67

Current legislation in Connecticut limits supervision by 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 46 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.

Supervision:

When the language regarding frequency and type of supervision was last amended in 2007, Connecticut still had not seen the wide spread use of telecommunication in medicine nor the advancement of the electronic medical record (EMR). Physicians and PAs are now capable of quality communication in an equally effective manner rather than through face-to-face meetings. Quality is improved by real time supervising physician access to medical records. In addition, reduced time

required for face-to-face activities impact time available for direct patient care. Thus, more PA and physicians will become more available to spend that time with patients.

Co-Signature:

PAs, who are faced with coordinating chart review to obtain required co-signature of Schedule II or III drug prescription in 24 hours of writing, must consider the most efficient path to take. One option might include writing the prescription and addressing the co-signature issue as required. This effort requires both PA and physician to dedicate time away from patients in order for co-signature to take place. In the situation where the PA knows that a co-signature could take more than 24 hours, the PA clinician may be forced to prescribe a lesser effective agent in order to satisfy statute. Unfortunately, this path may not satisfy the clinician's best judgment. This choice to satisfy statute as opposed to best clinical judgment may very well have subsequent negative consequences, ranging from poor symptom control to additional medical intervention and thus greater cost of care and less patient satisfaction.

PAs are trusted by Connecticut to prescribe both scheduled and non-scheduled drugs based on individual federal and state controlled substances certification. Additionally, physician supervisors are in the best position to make a determination that the PA is competent to decide when those medications are medically necessary. The physician's choice to delegate that prescriptive authority is provided under current statute regarding supervision under Chapter 370. Therefore, requiring a co-signature each time the PA exercises that authority is redundant.

(C) The impact that the request will have on public access to health care;

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. A recent 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 advanced clinicians to meet this looming tidal wave of consumer health care demands will risk much including; 1. Overall delays in treatment, 2. Higher cost to the community because of deferred care, 3. Heightened patient dissatisfaction and the associated liability risks that ensue and 4. Increased dissatisfaction of practitioners because of unmanageable workloads. By allowing practices rather than the state to determine the appropriate number of PAs per supervising physician, Connecticut's community of advanced practitioners will have more flexibility to address these concerns.

Supervision:

Any legislation or regulation that reduces time available for patients negatively impacts access. Face-to-face meetings are no longer state of the art. Travel time, compiling and reviewing medical records all require clinician and administrative time. It is a reasonable estimate that 1 hour of time spent in the review process adds up to at least 6 lost patient visits weekly per working PA/physician

team – that amounts to 9600 patient visits per week given nearly 1600 CT PAs. As organized medicine is attempting to streamline administrative activities, e.g. via the electronic medical record, Connecticut should allow practices to become more efficient in addressing PA – physician interface at the practice level.

Co-Signature:

Similarly to the concerns regarding supervision, ConnAPA believes that time spent coordinating co-signature of scheduled drugs reduces availability for direct patient care. This is clearly another issue that directly and negatively affects needed access to care.

(D) A brief summary of state or federal laws that govern the health care profession making the request;

Physician Assistants participate in Medicare, a Federal program, and Medicaid, a State sponsored program. Physician assistants are licensed and regulated by the state. They also fall under the Connecticut Medical Examining Board.

(E) The state's current regulatory oversight of the health care profession making the request;

The oversight of PAs in CT is regulated by the Department of Public Health and the Medical Examining Board.

(F) 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 are educated in intensive medical programs accredited by the [Accreditation Review Commission on Education for the Physician Assistant \(ARC-PA\)](#).⁽¹⁾ 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.⁽²⁾ There are more than 140 [accredited programs](#) in the United States. All PA programs must meet the same [ARC-PA standards](#).⁽¹⁾

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.⁽¹⁾

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.⁽¹⁾

A PA's education does not stop after graduation, though. PAs are required to take ongoing continuing medical education classes and be retested on their clinical skills on a regular basis. A number

of postgraduate PA programs have also been established to provide practicing PAs with advanced education in medical specialties.⁽¹⁾

PA programs look for students who have a desire to study, work hard, and to be of service to their community. Most physician assistant programs require applicants to have previous health care experience and some college education. The typical applicant already has a bachelor's degree and approximately four years of health care experience. Commonly, nurses, EMTs, and paramedics apply to PA programs. For more information on accreditation visit the [ARC-PA Web site](#).⁽¹⁾

Examination/Certification Requirements

Initial Certification

Graduates of an accredited PA program can take the Physician Assistant National Certifying Examination (PANCE) for certification. 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 two years).⁽³⁾

Certification Maintenance

The six-year certification maintenance cycle is divided into three two-year periods. During every two-year period, PA-C designees 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 sixth year of the certification maintenance cycle, PA-C designees 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 general medical and surgical knowledge. PAs who fail to maintain their certification must take and pass PANCE or PANRE to regain it. (Other eligibility requirements will apply.)⁽³⁾

Resources

1. <http://www.aapa.org/education-and-certification/physician-assistant-programs>
2. <http://www.aapa.org/about-pas/faq-about-pas>
3. <http://www.nccpa.net/CertificationProcess.aspx>

(G) 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;

2011

- Legislation to extend the deadline to June 30, 2012, for examination of fluoroscopy requirements by physician assistants.- ***H.B. 6618, Public Act, 11-242, Section 45***
- Act concerning the states health care workforce – S.B. 1202-***Requested Changes:***
 - Elimination of current ratio restriction of physicians to PAs
 - Elimination of personal review weekly or more frequently
 - Elimination of chart co-signatures

2010

- RNs must execute written orders by PAs – *S.B. 428, Public Act 10-117, Section 18*
- PA certification of student athlete health – *S.B. 456, Public Act 10-62*

2009

- PAs granted authority to use fluoroscopy – *H.B. 6678, Public Act 09-232, Sections 50,51*
- PAs listed as able to provide neonatal transports, *H.B. 6599, 09-16, An Act Concerning Patient Safety*

2008

- Prescribing and approving use of durable medical equipment and certify patients disabilities to obtain handicap permits- *Public Act 08-184, Sections 13, 14*

(G) 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; (Cont)

2007

- Legislation specifying that licensed PAs who are part of the CT Disaster Medical Assistance Team, the Medical Reserve Corps or the CT Urban Search and Rescue Team may provide patient services under the supervision of a licensed physician. *Public Act 07-119*

2006

- Medicare PA Continuity of Care Act – HR 6118
- An Act Concerning the Supervision of PAs – *H.B. 5477, Public Act 06-110*-Clarification of PA supervision requirements - The act revised the supervision requirements for physician assistants (PAs) by making a distinction between supervision in a hospital versus other settings amongst other updates.

(H) The extent to which the request directly impacts existing relationships within the health care delivery system;

The above requested changes would have a direct impact on physicians and the relationship between physicians and PAs. ConnAPA embraces physician supervision for PAs and believes in enhancing the physician-PA team. Given these fundamental beliefs, ConnAPA has discussed these proposed changes with physician organizations including the CT State Medical Society (CSMS), who endorses them.

Ratio Restriction:

The AMA Council on Medical Service stated “Supervising physicians are the most knowledgeable of their own supervisory abilities and practice style...Specified ratios of supervisory physicians to physician extenders might restrict appropriate provision of care and could reduce access to care.” The restriction on how many PAs a physician can supervise hampers the physician’s ability to customize care for his particular specialty, practice setting and patient population. Several physician organizations have already spoken out in favor of removing restrictions on the number of PAs a physician can supervise

including the following: The American Academy of Family Physicians, the American College of Emergency Physicians, the AMA Council on Medical Service, the American College of Physicians and The Federation of State Medical Boards.

Supervision:

The American Medical Association (AMA) acknowledges the importance of requiring supervision while allowing the physician the flexibility in practice management. In 1995, the AMA House of Delegates adopted *Guidelines for Physician/Physician Assistant Practice*, which includes that the physician is responsible for clarifying and familiarizing the PA with his supervising methods and style of delegating patient care. If the requirement for meetings “at least weekly or more frequently” were to be removed, this would allow the physician to maintain the primary decision-making authority, thus improving the physician-PA team.

Chart Co-Signature:

The AMA Guidelines for Physician/Physician Assistant Practice recommend that physicians and PAs “review all delegated patient services on a regular basis.” The Joint Commission also indicates that each accredited organization determine the need for co-signature. Allowing this decision to be made at the practice level allows the physician to take into account the practice setting, patient population and experience of the PA.

(I) 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 PA/physician teams increase practice efficiency and thus decrease overall health care costs. (See Appendix G, H, I, & J)

(J) 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;

Ratio Restriction:

ConnAPA is not the only organization that believes the appropriate ratio should be determined at the practice level. The American Academy of Family Physicians (AAFP), the American Medical Association (AMA), the American Academy of Physician Assistants (AAPA), the American College of Physicians (ACP), and 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.

For comparison’s sake, eight states have no ratio restrictions, including nearby Rhode Island and Maine, along with Alaska, Arkansas, New Mexico, North Carolina, North Dakota, and Tennessee. The newest development is Vermont H 369, which was signed into law June 1st which now confirms Vermont as compliance with all *Six Key Elements*.

Supervision:

The physician community also supports amending supervision language, as can be seen in the “Guidelines for Physician/PA Practice”, which were adopted by the AMA House of Delegates. These guidelines state that:

- The role of the PA in the delivery of care should be defined through mutually agreed upon guidelines that are developed by the physician and the PA and based on the physician’s delegatory style.
- The physician must be available for consultation with the PA at all times either in person or through telecommunication systems or other means.
- The physician is responsible for clarifying and familiarizing the PA with his supervising methods and style of delegating patient care.

Examples of states in our area that have adaptable supervision language in existing statute are Massachusetts, Maine, New York, Maryland, New Hampshire, Vermont and Rhode Island. Others areas are California, D.C., Hawaii, Michigan, Minnesota, North Dakota, South Dakota, Utah, and Wyoming. Connecticut is now only one of two states in the New York & New England region that has not eliminated this requirement.

Chart Co-Signature:

If the proposed changes are made to chart co-signature language, Connecticut would join other states in the Northeast region with this type of practice including Maine, Maryland, New York, Vermont and Rhode Island. Each of these states has no medical chart co-signature requirements in existing statute. Other states without co-signature requirements are Alaska, Arkansas, Florida, Idaho, Michigan, Minnesota, New Mexico, North Carolina, North Dakota, Ohio, Oregon, South Dakota, Wisconsin, and Wyoming. Within the New York and New England region, Connecticut, Massachusetts and New Hampshire are the last three to waive this requirement.

National Consensus Trends of Professional Physician Organizations:

American Academy of Family Physicians & AAPA – Joint Policy Statement on PA Scope of Practice 2010

Scope of Practice

Each PA’s scope of practice is defined by the individual’s education and experience, state law, facility policy, and physician delegation. The PA’s scope of practice is mainly determined by the supervising physician’s scope of practice and his or her delegatory decisions. The physician evaluates the PA’s competency and performance, and together they develop a team approach based on both the PA’s and physician’s clinical skills and patient needs. The physician and PA share ethical and legal responsibility for the care of a patient. In licensed health care facilities, including hospitals, nursing homes, and surgical centers, the facilities have a role in determining the scope of practice of PAs who practice in their institutions. PAs usually are credentialed by the medical staff and authorized through privileges in a manner parallel to that used for physicians. These privileges must be consistent with state law.¹

¹American Academy of Physician Assistants. Issue Brief: Physician Assistants Scope of Practice. January 2010

National Consensus Trends of Professional Physician Organizations: (Cont)

American College of Physicians & AAPA – Joint Policy Statement on PA Scope of Practice - 2010

Scope of Practice

Each PA's scope of practice is defined by the individual's education and experience, state law, facility policy and physician delegation. PAs are unique in that they embrace a physician-delegated scope of practice and view the care they provide as complementary to the care provided by physicians. In a physician practice, the PA's scope of practice is mainly determined by the delegatory decisions made by the supervising physician. The physician has the ability to observe the PA's competency and performance and plan for PA utilization based on the PA's abilities, the physician's delegatory style, and the needs of the patients seen in the practice.

The physician has ultimate responsibility for the patient and the supervision of the PA. State laws allow off-site supervision by physicians as long as they are available to the PA via telecommunication. A PA may have multiple supervising physicians, and a physician may supervise more than one PA. Supervising physicians do not need to be on the premises as long as they are available by phone or electronically and within a reasonable distance. In certain rural or inner-city clinics, PAs are the principal care providers, with the supervising physician present only 1 or 2 days each week.

In some cases, particularly in very rural or remote areas, the supervising physician is rarely if ever physically present in the PA-run clinic because of the distances between facilities. In licensed health care facilities, including hospitals, nursing homes, and surgical centers, the facilities have a role in determining the scope of practice of PAs who practice in their institutions. PAs are generally credentialed by the medical staff and authorized through privileges in a manner parallel to that used for physicians. These privileges must conform to state law.

(K) 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 Connecticut State Medical Society (CSMS) is the only health care profession that could reasonably be anticipated to be directly affected by these requested changes to the PA Practice Act. The CSMS has endorsed each of the changes and is supporting the AAPA and ConnAPA's effort to amend the current CT PA Practice Act to include ALL Six Key Elements as recognized by the American Academy of Physician Assistants as fundamental for a modern state PA Practice Act.

(L) 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, 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”* 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.

In summary, ConnAPA salutes the Department of Public Health and the Public Health Committee for its unwavering efforts to improve 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 A: No Ratio Restriction (Current Statute and Model Language)

Current Statute:

“Physicians may not supervise more than six full-time PAs concurrently, or the part-time equivalent thereof.”

-PA Practice Act, §20-12c(b)

Model Language:

Requirements for appropriate physician supervision of PAs are already defined in §20-12a(7) – definition of ‘supervision’. Ideally, this ratio provision above should be deleted.

If it had to be replaced by something, the replacement language could be:

“It is the obligation of each team of physician(s) and physician assistant(s) to ensure that methods of physician supervision are clearly defined and appropriate to the types of medical services being provided and the level of competence of the PA.”

Or

“The number of PAs that a physician may supervise shall be determined at the individual practice level.”

APPENDIX B: Issue Brief – Ratio of Physician Assistants to Supervising Physicians

STATE LAW ISSUES

ISSUE BRIEF



RATIO OF PHYSICIAN ASSISTANTS TO SUPERVISING PHYSICIANS

Physician assistants (PAs) practice medicine as part of a physician-led team. The physician-PA team is a well-accepted component of the health care workforce. Early state laws governing physician-PA practice restricted the number of PAs that a physician could supervise. These restrictions hampered physicians' ability to customize care for their particular specialty, setting and patient population. Allowing the number of supervised PAs to be determined at the practice level is preferable to restrictions in law.

PAs practice medicine with physician supervision. Throughout the history of the profession, PAs have had an unwavering commitment to team practice, with the physician as the head of the team.

Initially, the supervising physician-PA model envisioned a designated PA working beside a single physician in a primary care setting. As medical practice has embraced the use of PAs

as members of the team, however, this model has expanded. Single PAs and groups of PAs are now supervised by single physicians or groups of physicians in every medical and surgical specialty.

The first statutes and regulations governing supervising physician-PA practice were enacted in the early 1970s, at the beginning of the PA profession. State regulation of PA

Throughout the history of the profession, PAs have had an unwavering commitment to team practice, with the physician as the head of the team.

practice has been modified over the years to keep pace with the changing health care landscape. State laws also have evolved as the effectiveness of physician-PA team practice became more widely recognized.

Early state laws governing PA practice frequently put a limit on the number of PAs that could be supervised by a single physician. This limit was generally 2:1, and a few states had a mandated ratio of 1:1. As PA practice has become commonly accepted, many of these laws have been modified. Connecticut allows a supervising physician to supervise up to six PAs or the part-time equivalent of six PAs. California law specifies a 4:1 ratio, but emphasizes that this means “at any one time.” Further, licensing boards in several states may grant exceptions to the ratio restrictions. In a growing number of states, the laws and regulations do not limit the number of PAs that a physician may supervise.

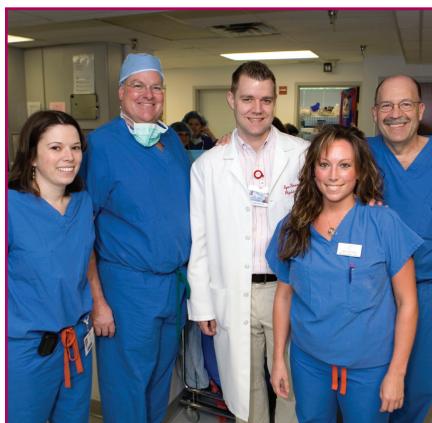
Several organizations have evaluated appropriate ratios of PAs per supervising physician. In 1996, the AAFP revised its policy on the ratio of PAs to supervising physicians. The AAFP deleted a sentence in its Guidelines on the Supervision of Certified Nurse Midwives, Nurse Practitioners and Physician Assistants policy that recommended a physician supervise no more than two “nonphysician” providers.¹

The ACEP also supports the practice level determining its own ratios of PAs to supervising physicians. In 2007, ACEP approved a policy stating that the medical director of an emergency department should define the number of PAs whose clinical work can be simultaneously supervised by one emergency physician.²

The AMA adopted the recommendation of its Council on Medical Service in 1998. Charged with studying the issue of ratios, the Council recommended: “The appropriate ratio of physician-to-physician extenders should be determined by physicians at the practice level, consistent with good medical practice, and state law where relevant.”³

In a 2010 joint policy monograph with AAPA, the American College of Physicians endorses the idea of appropriate ratios being determined at the practice level: “AAPA and ACP encourage flexibility in federal and state regulation so that each medical practice determines appropriate clinical roles within the medical team, physician-to-PA ratios, and supervision processes, enabling each clinician to work to the fullest extent of his or her license and expertise.”⁴

The Federation of State Medical Boards also supports ratios being determined at the practice level. In their 2010 Essentials of a Modern Medical & Osteopathic Practice Act, FSMB



recommends that state laws simply require that “no physician should have under their supervision more staff, physician assistant or otherwise than the physician can adequately supervise.” FSMB does not recommend the inclusion of a specific number in state law.⁵

AAPA believes the appropriate number of PAs is best determined at the practice level, rather than in state law. Health professional regulation should allow for flexible and creative innovation and appropriate use of all members of the health care workforce. In many primary care settings, such as well-child or family planning clinics, a supervising physician could supervise multiple PAs. In a complex surgical case, the ratio might appropriately be 1:1. The guiding principle is that supervision must be defined and maintained, and that the supervising physician should be allowed some flexibility in staffing and team deployment.

Concurring with this principle in reaching its recommendation, the AMA Council on Medical Service stated: “Supervising physicians are the most knowledgeable of their own supervisory abilities and practice style, as well as the training and experience of physician extenders in their practice...Specified ratios of

supervisory physicians to physician extenders might restrict appropriate provision of care and could reduce access to care.”⁶

AAPA recommends that state laws contain no reference to specific ratios of PAs to a supervising physician.⁷ This decision is best left to the supervising physician and should be customized to the nature of the practice, the complexity of the patient population, the experience of the PAs and the supervisory approach of the supervising physician or physicians. Therefore, state laws should contain an appropriate definition of supervision and require that supervision as defined be maintained at all times and in all settings.

ADDITIONAL RESOURCES

For more information about modern PA law, PA education, PA scope of practice and the physician-PA team, visit our Issue Briefs page at www.aapa.org/advocacy-and-practice-resources/issue-briefs. For additional information about state regulation, see our State Government and Licensing page at www.aapa.org/advocacy-and-practice-resources/state-government-and-licensing.

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APPENDIX C: Supervision (Current Statute and Model Language)

Current Statute:

In hospital settings, supervision means the exercise by the supervising physician of oversight, control, and direction of the services of a PA. This includes but is not limited to: (1) continuous availability of direct communication either in person or by radio, telephone or telecommunications between PA and supervising physician; (2) active overview of PA's activities; (3) personal review of PA's practice at least weekly or more frequently as necessary to ensure quality patient care; (4) regular chart review; (5) delineation of plan for emergencies; (6) designation of an alternate physician who is registered with the department in absence of supervisor.

CONN. GEN. STAT. §20-12a(7)(A)

Supervision in settings other than hospitals means the exercise by the supervising physician of oversight, control and direction of the services of a PA. This includes but is not limited to: (1) continuous availability of direct communication either in person or by radio, telephone or telecommunications between PA and supervising physician; (2) active overview of PA's activities; (3) personal review of PA's practice through face-to-face meetings with the PA, at least weekly or more frequently as necessary to ensure quality patient care; (4) regular chart review, with documentation of review to be kept at practice site; (5) delineation of plan for emergencies; (6) designation of an alternate physician who is registered with the department in absence of supervisor.

CONN. GEN. STAT. §20-12a(7)(B)

The key phrase here is “at least weekly or more frequently”, and it should be deleted:

Model Language (1):

In hospital settings, supervision means the exercise by the supervising physician of oversight, control, and direction of the services of a PA. This includes but is not limited to: (1) continuous availability of direct communication either in person or by radio, telephone or telecommunications between PA and supervising physician; (2) active overview of PA's activities; (3) personal review of PA's practice ~~at least weekly or more frequently~~ as necessary to ensure quality patient care; (4) regular chart review; (5) delineation of plan for emergencies; (6) designation of an alternate physician who is registered with the department in absence of supervisor.

CONN. GEN. STAT. §20-12a(7)(A)

Supervision in settings other than hospitals means the exercise by the supervising physician of oversight, control and direction of the services of a PA. This includes but is not limited to: (1) continuous availability of direct communication either in person or by radio, telephone or telecommunications between PA and supervising physician; (2) active overview of PA's activities; (3) personal review of PA's practice through face-to-face meetings with the PA, ~~at least weekly or more frequently~~ as necessary to ensure quality patient care; (4) regular chart review, with documentation of review to be kept at practice site; (5) delineation of plan for emergencies; (6) designation of an alternate physician who is registered with the department in absence of supervisor.

CONN. GEN. STAT. §20-12a(7)(B)

Alternatively, it could be re-worded:

Model Language (2):

“Supervision may include, but is not limited to: (iii) personal review by the supervising physician of the physician assistant's practice at least weekly or more frequently as necessary to ensure quality patient care.

APPENDIX D: Issue Brief – Supervision of PAs: Access and Excellence in Patient Care

STATE LAW ISSUES

ISSUE BRIEF



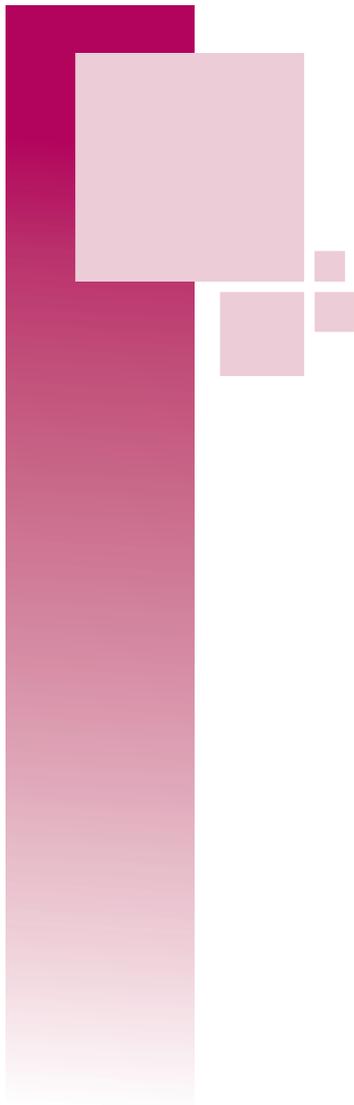
SUPERVISION OF PHYSICIAN ASSISTANTS: ACCESS AND EXCELLENCE IN PATIENT CARE

Physician assistants (PAs) practice medicine with physician supervision. This concept is fundamental to the PA profession. The delegated care that PAs provide helps extend access and gives physicians added time to focus on more complex and challenging cases. Physician-PA teams benefit both patients and practitioners, and state laws that allow each practice to decide how to implement physician supervision maximize team effectiveness.

To extend a doctor's ability to care for patients, pioneering physicians created the PA profession to produce highly skilled professionals who are trained in the medical model. This model has proven to be exceptionally effective, and PAs are now integrated into medical and surgical teams in nearly all specialties and settings.

PAs are health care professionals licensed to practice medicine with

the supervision of a physician or physicians. The PA profession embraces this concept and considers supervision to be so essential to PA practice that supervision is included in the definition of PA. AAPA policy defines PAs in this manner: "Physician assistants are health professionals licensed or, in the case of those employed by the federal government, credentialed, to practice medicine with physician supervision."¹



The best patient care decisions are made as customized responses to individual practice situations.

Academy policy goes on to endorse team practice in a changing health care system: “The AAPA believes that the physician-PA team relationship is fundamental to the PA profession and enhances the delivery of high quality health care. As the structure of the health care system changes, it is critical that this essential relationship be preserved and strengthened.”²

By law, every state requires PAs to practice with physician supervision. The majority of state laws governing PA practice have definitions identical or similar to AAPA’s model language on supervision, which states: “Supervision is defined as overseeing the activities of and accepting responsibility for, the medical services rendered by a physician assistant.”³

According to AAPA’s *Guidelines for State Regulation of Physician Assistants*, “[t]he guiding principles of supervision must be that it (a) protects the public health and safety, and (b) preserves the physician assistant’s access to physician consultation when indicated.”⁴

The best patient care decisions are made as customized responses to individual practice situations.

TEAM PRACTICE INVOLVES SHARED RESPONSIBILITY

The concept of supervision does not mean that the supervising physician must always be present with the PA or direct every aspect of PA-provided care. PAs are trained in the medical model by physicians, PAs and faculty members who also teach physicians. Because they train using similar curriculum, training sites, faculties and facilities, physicians and PAs develop a similarity in medical

reasoning during their training that eventually leads to standardized thought in the clinical workplace; PAs think like doctors.⁵

The model of physician-PA practice has been described as delegated autonomy. Educational programs prepare PAs for autonomous decision making, and PAs arrive at practice ready to assume their role in the health care team. The practice arrangement established by physicians and PAs has been compared to the relationship between attending physicians and resident physicians. Although the depth and breadth of teamwork established by physicians and PAs who spend entire careers in practice together exceeds that which can be established by the brief tenure that physicians and residents share, there are many similarities between the attending-resident team and supervising physician-PA team. These key components include delegated autonomy, clear lines of accountability and the reciprocal responsibilities of providing supervision and seeking consultation.

Within the physician-PA team, as within teams of attending and junior physicians, there is an understanding that the PA is prepared for practice with an adequate fund of knowledge and set of clinical skills. The PA and physician define the PA’s role in the practice, and, within this role, the PA consults with and seeks input from the physician whenever there are clinical questions that exceed the PA’s expertise or when physician involvement is necessary for care. As with all practices, duties change over time; PAs assume greater responsibility and autonomy as their experience increases.

Physicians do not find PA supervision burdensome. Rather, because PAs and physicians use similar diagnostic and

therapeutic reasoning, adding a PA to a practice can allow the physician to focus on patient care that requires his or her full expertise. The PA, with the physician's direction, is expected to perform appropriately delegated tasks autonomously. Thus, the care provided by the PA is directed and its quality is assured by the physician. More routine care, initial evaluation of specialty patients, follow up, patient education and care coordination can be delegated to the PA. Complex patient problems, high acuity care, and management of difficult-to-treat conditions involve a greater proportion of physician time and expertise.

The most effective physician-PA team practices provide optimum patient care by designing a practice model where the skills and abilities of each team member are used most efficiently. Ideally, physicians are not involved in care best provided by PAs and, similarly, PAs do not undertake tasks best provided by physicians. Further, studies consistently find enhanced quality of care in settings that fully integrate physician-PA practice.⁶⁻⁸

STATE LAWS AND PA SUPERVISION

Ideally, state laws should require supervision, define it and include provisions that allow for customization of health care teams to best meet the needs of patients. Because of the diversity of settings and specialties in which PAs practice, a specific requirement for on-site presence of the physician will be unavoidably arbitrary. Certain requirements may be appropriate for some settings, but would be too restrictive or permissive in others. For example, state laws that require a

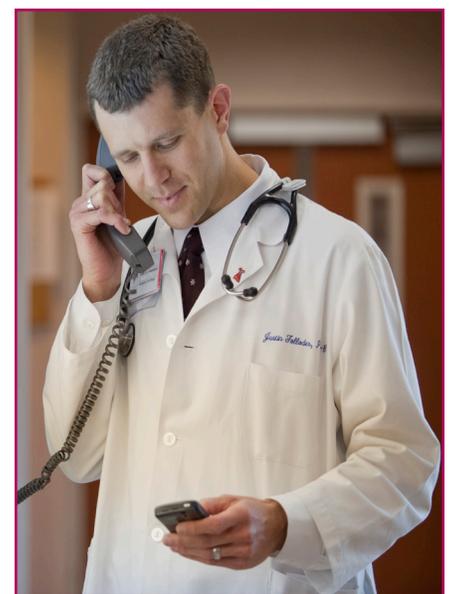
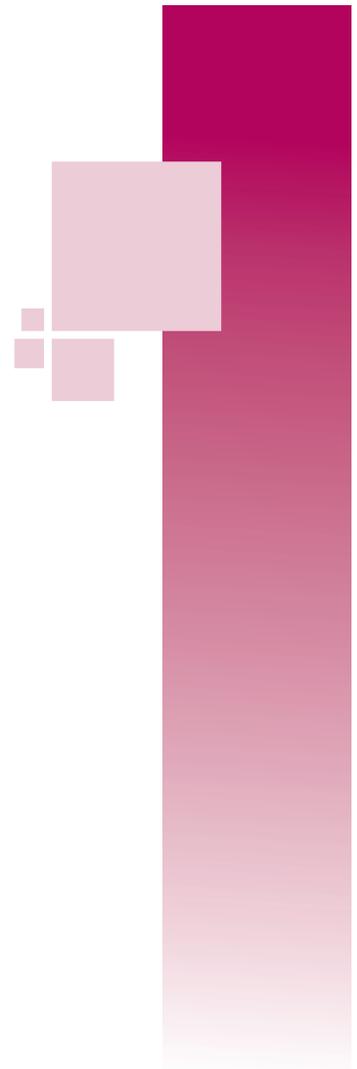
physician to be on-site for a specified amount of time can be a barrier to care in some circumstances. A much more patient sensitive approach is to allow the physician(s)-PA(s) teams to match supervision to the specific needs of the practice.

The American Medical Association (AMA) acknowledges the importance of requiring supervision while allowing physician flexibility in practice management. In 1995, the AMA House of Delegates adopted the *Guidelines for Physician/Physician Assistant Practice*, which includes:

- The role of the Physician Assistant(s) in the delivery of care should be defined through mutually agreed upon guidelines that are developed by the physician and the Physician Assistant and based on the physician's delegatory style.
- The physician must be available for consultation with the Physician Assistant at all times either in person or through telecommunication systems or other means.
- The physician is responsible for clarifying and familiarizing the Physician Assistant with his supervising methods and style of delegating patient care.⁹

A growing number of state laws are being modified to improve a physician's ability to extend access to care through physician-PA teams. States are using language that defines supervision more broadly and are repealing laws that require physicians to be present at their practices for a set number of hours.

State laws governing the physician-PA team should include provisions that



require physician supervision, but allow for reasonable flexibility to allow doctors and PAs to provide patient care effectively and efficiently.

ADDITIONAL RESOURCES

Physician-PA teams enhance health care and allow for greater patient access to high-quality care. To learn more about PA education, physician-PA team practice or the six key elements of modern PA practice acts, please visit AAPA's Resources page at www.aapa.org/advocacy-and-practice-resources/issue-briefs.

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APPENDIX E: Chart Co-Signature (Current Statute and Model Language)

Current Statute:

Section 20-12d. Medical functions performed by physician assistants. Prescriptive authority.

(a) A physician assistant who has complied with the provisions of sections 20-12b and 20-12c may perform medical functions delegated by a supervising physician when: (1) The supervising physician is satisfied as to the ability and competency of the physician assistant; (2) such delegation is consistent with the health and welfare of the patient and in keeping with sound medical practice; and (3) when such functions are performed under the oversight, control and direction of the supervising physician. The functions that may be performed under such delegation are those that are within the scope of the supervising physician's license, within the scope of such physician's competence as evidenced by such physician's postgraduate education, training and experience and within the normal scope of such physician's actual practice. Delegated functions shall be implemented in accordance with written protocols established by the supervising physician. All orders written by physician assistants shall be followed by the signature of the physician assistant and the printed name of the supervising physician. A physician assistant may, as delegated by the supervising physician within the scope of such physician's license, (A) prescribe and administer drugs, including controlled substances in schedule IV or V in all settings, (B) renew prescriptions for controlled substances in schedule II, III, IV or V in all settings, and (C) prescribe and administer controlled substances in schedule II or III in all settings, provided in all cases where the physician assistant prescribes a controlled substance in schedule II or III, the physician under whose supervision the physician assistant is prescribing shall document such physician's approval of the order in the patient's medical record not later than one calendar day thereafter, and (D) prescribe and approve the use of durable medical equipment. The physician assistant may, as delegated by the supervising physician within the scope of such physician's license, request, sign for, receive and dispense drugs to patients, in the form of professional samples as defined in section 20-14c or when dispensing in an outpatient clinic as defined in the regulations of Connecticut state agencies and licensed pursuant to subsection (a) of section 19a-491 that operates on a not-for-profit basis, or when dispensing in a clinic operated by a state agency or municipality. Nothing in this subsection shall be construed to allow the physician assistant to request, sign for, receive or dispense any drug the physician assistant is not authorized under this subsection to prescribe.

–Conn. Gen. Stat. §20-12d

Model Language:

Section 20-12d. Medical functions performed by physician assistants. Prescriptive authority.

(a) A physician assistant who has complied with the provisions of sections 20-12b and 20-12c may perform medical functions delegated by a supervising physician when: (1) The supervising physician... is satisfied as to the ability and competency of the physician assistant; (2) such delegation is consistent with the health and welfare of the patient and in keeping with sound medical practice; and (3) when such functions are performed under the oversight, control and direction of the supervising physician. The functions that may be performed under such delegation are those that are within the scope of the supervising physician's license, within the scope of such physician's competence as evidenced by such physician's postgraduate education, training and experience and within the normal scope of such physician's actual practice. Delegated functions shall be implemented in accordance with written protocols established by the supervising physician. All orders written by physician assistants shall be followed by the signature of the physician assistant and the printed name of the supervising physician. A physician assistant may, as delegated by the supervising physician within the scope of such physician's license, ~~(A) prescribe and administer drugs, including controlled substances in schedule II, III, IV or V in all settings, (B) renew prescriptions for controlled substances in schedule II, III, IV or V in all settings, and (C) prescribe and administer controlled substances in schedule II or III in all settings, provided in all cases where the physician assistant prescribes a controlled substance in schedule II or III, the physician under whose supervision the physician assistant is prescribing shall document such physician's approval of the order in the patient's medical record not later than one calendar day thereafter,~~ and ~~(D) may~~ prescribe and approve the use of durable medical equipment. The physician assistant may, as delegated by the supervising physician within the scope of such physician's license, request, sign for, receive and dispense drugs to patients, in the form of professional samples as defined in section 20-14c or when dispensing in an outpatient clinic as defined in the regulations of Connecticut state agencies and licensed pursuant to subsection (a) of section 19a-491 that operates on a not-for-profit basis, or when dispensing in a clinic operated by a state agency or municipality. Nothing in this subsection shall be construed to allow the physician assistant to request, sign for, receive or dispense any drug the physician assistant is not authorized under this subsection to prescribe.

–Conn. Gen. Stat. §20-12d

APPENDIX F: Issue Brief – Chart Co-Signature and Physician Supervision of PAs

STATE LAW ISSUES

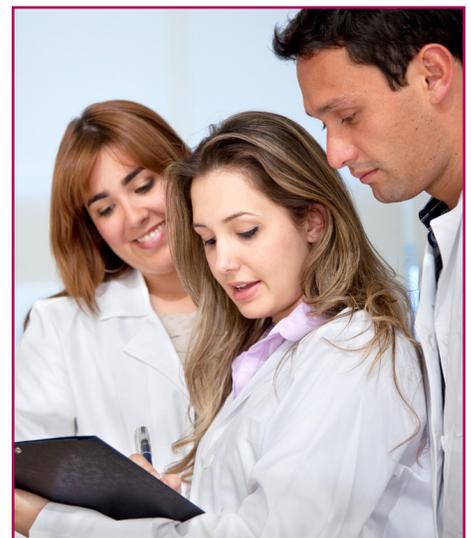
ISSUE BRIEF

CHART CO-SIGNATURE AND PHYSICIAN SUPERVISION OF PHYSICIAN ASSISTANTS: WHAT IS BEST FOR PATIENT CARE?

Physician assistants (PAs) practice medicine with physician supervision. Each PA's scope of practice is defined by delegation decisions of the supervising physician, consistent with the PA's education, facility policy and state laws. As physicians and institutions work to increase efficiency in medical practice, and as technology changes the way care is delivered, aspects of medical systems are being reevaluated. Among these is physician co-signature of PA chart entries and orders.

PAs are committed to practicing as members of physician-directed teams. Within these teams, chart co-signature (or "countersignature") is one method that physicians and PAs use to ensure physician oversight of PA practice.

Early state laws required all PA-written chart entries to be signed by physicians. However, these statutes were written without the experience of PA practice. Physician-PA teams have now been part of US health care for 40 years, and this experience confirms that — like many aspects of clinical medicine — the



best patient care decisions are made as customized responses to individual practice situations.

As health care progresses, laws and regulations governing physician-PA teams should be updated to reflect the evolutions in health care and the experience of PA practice. While preserving supervision and oversight is critical, requiring supervising physicians to co-sign every PA-written order or chart removes the doctors' discretion to exercise supervision in the way that works best for their practices. It also can place an unnecessary burden on the doctor, detracting from the efficiency of care the physician-PA team delivers.

The best patient care decisions are made as customized responses to individual practice situations.

PHYSICIAN-DIRECTED PRACTICE

The PA profession was created in the late 1960s by physicians who envisioned a professional, trained in the medical model, who would work closely with a physician or group of physicians to enhance the doctor's ability to efficiently and effectively provide patient care. The landscape of health care has undergone many changes since then. However, the PA profession has remained true to the vision of its physician founders; PAs embrace

physician supervision and do not seek independent practice.

The relationship between PAs and physicians begins in PA educational programs where physicians, PAs and science professors provide instruction in a curriculum following the medical school model. Program applicants must complete at least two years of college courses in basic science and behavioral science as prerequisites to PA training. PA students typically share classes, facilities and clinical rotations with medical students. PA programs are usually 27 months in length,¹ and they begin with a year of basic medical science courses (anatomy, pathophysiology, pharmacology, physical diagnosis, etc.).

Following the basic and medical science classroom work, PA students begin clinical training. This training includes classroom instruction and clinical rotations in medical and surgical specialties (family medicine, internal medicine, obstetrics and gynecology, pediatrics, general surgery, emergency medicine and psychiatry). Prior to graduation, PA students complete, on average, 2,000 hours of supervised clinical practice.²

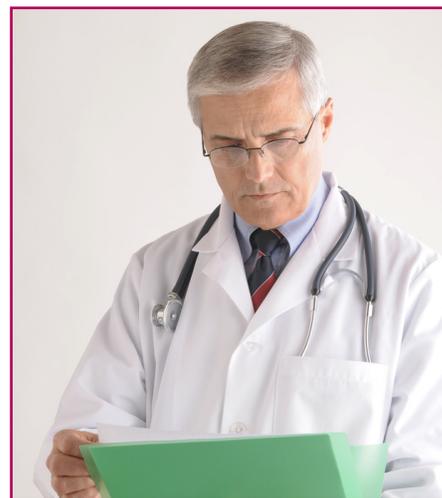
Because they train using similar curricula, training sites, faculties and facilities, physicians and PAs develop a similarity in medical reasoning during their schooling that eventually leads to standardized thought in the clinical workplace; PAs think like doctors.³

The definition of the PA profession, as stated in the policy of the American Academy of Physician Assistants

(AAPA), demonstrates PAs' commitment to practicing in physician-led teams: "Physician assistants practice medicine with supervision of licensed physicians."⁴ This commitment to supervision by physicians is also evident in all state laws governing physician-PA practice. Although there is some variety in the way in which the requirement is stated, all state laws require a supervising physician to be available either in person or via telecommunication to consult with the PA when the he or she is seeing patients.⁵

CHART CO-SIGNATURE AND OVERSIGHT

Currently, some states require a small fraction of charts to be co-signed, while many states have no requirement for chart co-signature by physicians in law or rule. There are times when chart co-signature by physicians is appropriate. For example, PAs have a responsibility to ensure that a supervising physician reviews complex problems and that the review is documented. Also, supervising physicians should review



PA-written chart entries, either every one or selected records, if that is the physician's preference. Further, licensed health care facilities, institutions and group practices are obligated to establish requirements — including co-signature requirements — that best suit the needs of the patients they serve.

The American Medical Association (AMA) recognizes the individual physician's role in determining specific aspects of PA practice and oversight. In 1995, the AMA House of Delegates adopted *Guidelines for Physician/Physician Assistant Practice* and, as noted in the guidelines, review of PA practice is the responsibility of the physician and PA:

- The physician is ultimately responsible for coordinating and managing the care of patients and, with the appropriate input of the physician assistant, ensuring the quality of health care provided to patients.
- The physician is responsible for the supervision of the physician assistant in all settings.
- The physician and physician assistant together should review all delegated patient services on a regular basis, as well as the mutually agreed upon guidelines for practice.⁶

Additionally, the Joint Commission, an independent organization that accredits the majority of hospitals in the United States, recommends that each accredited organization determine the necessity for co-signature. The relevant standard states: "The hospital defines

the types of entries in the medical record made by nonindependent practitioners that require countersigning in accordance with law and regulation."⁷

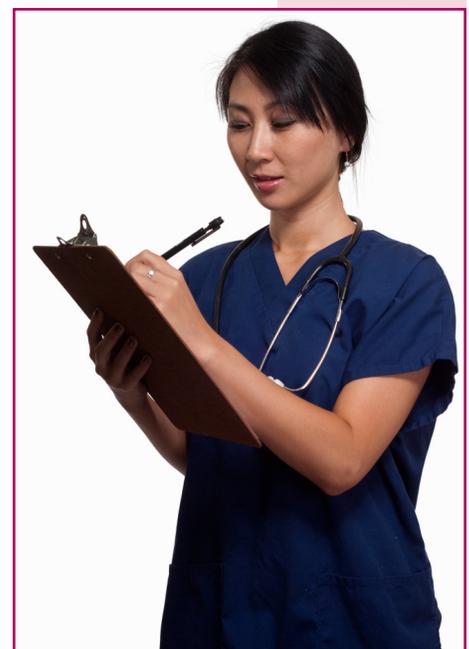
AAPA holds that physician oversight is the joint responsibility of the physician and the PA. According to AAPA's Model State Legislation for Physician Assistants:

"It is the obligation of each team of physician(s) and physician assistant(s) to ensure that the physician assistant's scope of practice is identified; that delegation of medical tasks is appropriate to the physician assistant's level of competence; that the relationship of, and access to, the supervising physician is defined; and that a process for evaluation of the PA's performance is established."⁸

CHART CO-SIGNATURE AND PATIENTS

Rigid co-signature requirements in state law can diminish the opportunity for quality physician oversight. If, for example, a physician is required to counter-sign all routine orders, the doctor has less time available for in-depth discussion of specific cases with the PA.

The ideal system for physician oversight, then, is designed at the practice or facility level. If a physician is supervising a PA who is new to the practice, the doctor may decide to countersign, for a period of time, certain types of orders before they are implemented. If a physician-PA team has worked together for many years, a monthly case



conference may be the most quality-focused oversight system. Ultimately, the practice or facility must be able to decide what level of physician oversight PAs will require. This decision-making ability allows for greater responsiveness to physician, PA and patient needs.

CHART CO-SIGNATURE AND ELECTRONIC RECORDS

Electronic medical records are increasingly taking the place of the traditional paper chart and, in instances where state law, facility guidelines or physician or PA preferences call for chart co-signature, physicians should be able to meet the co-signature requirement with notations in the electronic medical record. Thus, facilities or practices that require physician co-signature should invest in electronic medical records systems that allow physicians to co-sign records quickly and conveniently.

ADDITIONAL RESOURCES

To ensure quality, efficient health care, practices or facilities should have the autonomy to decide whether physician co-signature of PA-written charts is appropriate for their organizations. For more information about PA scope of practice, physician-PA teams or about the six key elements of modern PA law, visit AAPA's Resources page at www.aapa.org/advocacy-and-practice-resources/issue-briefs.

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APPENDIX G:
Gaps in the Supply of Physicians, Advance Practice Nurses, and Physician Assistants

Gaps in the Supply of Physicians, Advance Practice Nurses, and Physician Assistants

Michael Sargen, BA, Roderick S Hooker, PhD, PA, Richard A Cooper, MD

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- BACKGROUND:** Based on the goals of health care reform, growth in the demand for health care will continue to increase the demand for physicians and, as physician shortages widen, advanced practice nurses (APNs) and physician assistants (PAs) will play larger roles. Together with physicians they constitute a workforce of “advanced clinicians.” The objective of this study was to assess the capacity of this combined workforce to meet the future demand for clinical services.
- STUDY DESIGN:** Projections were constructed to the year 2025 for the supply of physicians, APNs, and PAs, and these were compared with projections of the demand for advanced clinical services, based on federal estimates of future spending and historic relationships between spending and the health care labor force.
- RESULTS:** If training programs for APNs and PAs grow as currently projected but physician residency programs are not further expanded, the aggregate per capita supply of advanced clinicians will remain close to its current level, which will be 20% less than the demand in 2025. Increasing the numbers of entry-level (PGY1) residents by 500 annually will narrow the gap, but it will remain >15%.
- CONCLUSIONS:** The nation faces a substantial shortfall in its combined supply of physicians, APNs, and PAs, even under aggressive training scenarios, and deeper shortages if these scenarios are not achieved. Efforts must be made to expand the output of clinicians in all 3 disciplines, while also strengthening the infrastructure of clinical practice and facilitating the delegation of tasks to a broadened spectrum of caregivers in new models of care. (J Am Coll Surg 2011; xx:xxx. © 2011 by the American College of Surgeons)
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As the United States adapts to health care reform, it confronts a series of future uncertainties. How much health care will there be, who will pay for it, who will receive it, and who will provide it? Of particular importance to physicians is the last; will there be enough doctors to provide the necessary care?¹ This question is especially germane to surgeons, whose numbers are projected to fall short of the future needs for surgical care^{2,3} not only in general surgery,⁴ where projected shortages are severe, but in specialties such as oncologic and orthopaedic surgery, where the demand for services continues to increase.^{5,6}

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During the past several decades, others who provide first-contact care have shared care, to an increasing degree, that was once the exclusive province of physicians.^{7,8} Therefore, in assessing the adequacy of the future physician workforce, we broadened our analysis to include other licensed and regulated health professions that have the prerogatives to see a patient without referral and to make and communicate a diagnosis with or without physician supervision. Excluding dentists, psychologists, and clinical social workers, there are only 7 such disciplines.⁹ The majority are either advanced practice nurses (APNs) or physician assistants (PAs), and optometrists, podiatrists, and practitioners of alternative and complementary medicine constitute the rest.¹⁰ Together with physicians, these other licensed disciplines constitute a workforce of approximately 1.0 million clinicians, 90% of whom are physicians, APNs, or PAs. Our study considered these 3 disciplines as a single, albeit varied, workforce of “advanced clinicians” who will carry out a definable range of tasks and responsibilities.¹¹

To gauge the future supply of physicians and other advanced clinicians against the future demand for services, we drew on projections of health care spending that were

Abbreviations and Acronyms

APN = advanced practice nurse
 GDP = gross domestic product
 NP = nurse practitioner
 PA = physician assistant
 PGY = post-graduate year of residency

framed by federal planners and leading economists during¹²⁻¹⁴ and after^{15,16} the recent enactment of health care reform legislation. It is important to note that these projections of spending are not expressions of need; instead, they are estimates of the actual demand for services, ie, how much care society is likely to purchase. Historic trends show that growth of the health care labor force closely tracks actual growth in health care spending, although physician supply grows more slowly than the labor force overall, as tasks are delegated to lesser-trained individuals.^{17,18} We used these historic trends to translate projections of spending to projections of the future demand for physicians and other advanced clinicians.

Before presenting our findings, it seems useful to ask if the future demand for physicians can even be measured. Many commentators reject such exercises out of hand, citing past failures. As described in previous publications,^{1,19} there has been a long history of failure, from the Graduate Medical Education National Advisory Committee Report in 1980 through the many reports of the Council on Graduate Medical Education into the late 1990s. However, these all used methodologies based on time and task approaches in which the existing work of physicians was disaggregated into its various components and projected forward into an unknown future of medical care. In 1999, Cooper supplanted this approach with the trend model based on underlying economic dynamics.²⁰ This model accurately foretold the current shortages²¹ at a time when it was widely believed that surpluses were instead imminent.²² In the years that followed, it was further developed^{17,18} and subsequently adopted by both the Council on Graduate Medical Education²³ and the Association of American Medical Colleges,²⁴ which also projected deepening shortages of physicians. The current exercise uses this same approach.

METHODS**Who was counted**

We counted patient care physicians, both MD and DO, excluding residents, as enumerated in the AMA's Physician Characteristics.²⁵ Physicians in nonclinical roles (research, administration, and teaching) were excluded, although some provide clinical services. We viewed this volume of

service to be balanced by the decreased service provided by physicians in clinical roles who worked between 20 and 45 hours but, in the AMA system, are categorized as full-time.

APNs were defined according to the *National Sample Survey of Registered Nurses* for 2004 and 2008^{26,27} and included nurse practitioners (NPs), clinical nurse specialists, nurse midwives, and certified registered nurse anesthetists. Only APNs employed in clinical nursing were included. The percentages of nurses employed in clinical care for each of the 4 APN disciplines were obtained from the National Sample Surveys.^{26,27} Averaged for both surveys and across all categories of APNs, 73% were employed in clinical nursing, most with job titles reflecting their advanced degrees. Of those who were not, 15% were engaged in instruction or management and 12% were not employed in nursing.

Estimates of the numbers of PAs for the years 1991 to 2008 were obtained from the American Academy of Physician Assistants,²⁸ as reported by Hooker and colleagues.²⁹ We did not distinguish the work effort of clinicians in the various disciplines, but for purposes of this exercise considered them to be equivalent. All data are expressed in per capita terms, drawing on estimates from the US Census Bureau.³⁰

Estimating the input of new clinicians

To estimate the input of new physicians, we created 3 models based on changes in the numbers of post-graduate year-1 (PGY-1) residents without earlier training; no change from the base year 2007; annual increases of 500 (approximately 2%) beginning in 2012; and annual increases of 1,000 (4%) beginning in 2012. The latter rate would double capacity during the next 20 years, a rate of growth that exceeds even the rapid growth during the 1970s and 1980s³¹ and is unlikely to be accommodated by either hospitals or training programs today. Baseline residency numbers for 2007 were obtained from the annual survey of Graduate Medical Education.³²

Estimates of the input of new NPs, clinical nurse specialists, nurse midwives, and certified registered nurse anesthetists were derived from recent trends in graduation reported by the American Association of Colleges of Nursing.³³ These data predict an increase of approximately 300 (3%) new graduates annually, 85% of whom will be NPs and clinical nurse specialists. As an alternative high-enrollment model, we assumed that graduation rates would increase by 500 (5%) annually, although this rate of growth, which would increase capacity by >50% during the next decade, exceeds the likely availability of faculty preceptors and clinical training sites. In accord with the current composition of the APN workforce, we assumed that 15% of new graduates would undertake careers in

instruction or management and that 12% would not actively participate in nursing. We also assumed that the recent shift from masters to doctoral-level NPs would not influence the numbers of NP graduates.

PA enrollment data from 1984 to 2009 and estimates of future enrollment were obtained from the Physician's Assistant Education Association³⁴ and the Accreditation Review Commission for Physician Assistant Education.³⁵ Based on these data, we projected that PA enrollment rates, which doubled during the past decade, would increase by 350 (5%) in 2011 and continue to increase thereafter, but at a decreasing rate, declining to 100 new graduates in 2025. As an alternative high-enrollment model, we assumed that PA graduation rates continually increase, from an additional 350 graduates in 2011 to 500 additional graduates (7%) in 2020, although, as in nursing, growth of faculty and training sites is likely to preclude such a rate of expansion. Although we have modeled high output growth in the production of new clinicians at rates of 4% for physicians, 5% for APNs, and 7% for PAs, it is extremely unlikely that these growth rates will be attained, and they are modeled only for purposes of illustrating an upper limit.

Primary and specialty care

The term *primary care clinician* was applied more narrowly than is the custom. It refers to those clinicians who are engaged in office-based primary care practices because it is the range of services that they provide that planners and the public associate with primary care. Physicians who had been trained as generalists but practiced in specialties such as sports medicine or as hospitalists or nocturnists were counted as nonprimary care specialists, as were emergency physicians, intensivists, and physicians in other hospital-based roles. Physician in obstetrics and gynecology were counted as nonprimary care specialists, while nurse midwives and geriatricians were counted as primary care clinicians, based on the predominant clinical roles of each. Certified registered nurse anesthetists were counted as specialists. Because our statistical demarcations were more rigid than the realities of clinical practice, the results must be viewed as estimates rather than precise measures of the distribution of primary and specialty clinicians.

For each physician growth model, we created 3 scenarios for the relative numbers of physicians entering primary care (as defined here) and specialties: 50% primary care and 50% specialties, 33% primary care and 67% specialties, and 25% primary care and 75% specialties. Based on recent trends in NP career choices,³² we assumed that 67% of NP graduates would be engaged in office-based primary care and 33% in specialties. Similarly, drawing on recent PA graduation trends,^{28,29} we assumed that 33% of new

PAs would enter practice in primary care and 67% in the medical and surgical specialties.

Attrition

The attrition of physicians from clinical practice was derived from an analysis of the numbers of physicians in decadal age groups and the numbers of residents entering the workforce.^{19,26} Based on data from 1986 through 2008, it was assumed that 6% of residents would enter nonclinical careers and that among those in clinical practice, 1% of those younger than 35 years would not enter the 35- to 44-year-old cohort, 4% of those aged 35 to 44 years would not enter the 45- to 54-year-old cohort, 9% of those aged 45 to 54 years would not enter the 55- to 64-year-old cohort, 34% of those aged 55 to 64 years would not enter the 65+ cohort, and attrition would be 10% annually for those aged 65+. The AMA data used in making these estimates has been reported to undercount younger physicians and overcount older physicians to approximately the same degree,³⁶ but we did not adjust it to reflect this discrepancy. Similarly, we did not adjust for the decreasing number of hours worked by physicians.³⁷ The errors associated with each of these are in the direction of overestimating physician supply.

Attrition rates for APNs were derived by applying the Census Bureau's *Labor Force Participation Rates for Professionals*³⁸ to the age distribution of APNs, as reported in the National Sample Survey of Registered Nurses for 2004 for all individuals with an RN degree employed in nursing.²⁶ Age distributions were not available in the 2008 survey.²⁷ Although APNs tend to be older than all RNs, the age distribution of the latter was used, which biases the data to overcounting APNs in clinical nursing.

Attrition of PAs was modeled from data on the numbers of PAs in clinical practice and the numbers graduating annually during the period from 1991 to 2001.^{28,34} The best fit was an attrition rate of 2.5% in 1991, increasing by 0.1% annually. This model, which estimates attrition for all reasons (death, retirement, alternative careers), correctly predicted the supply of PAs employed in clinical practice during the subsequent period from 2001 to 2009.

Spending and demand

The future demand for health care was derived from 2 exercises. The first, which replicated an earlier model,¹⁸ related future health care spending and the demand for physician services to future growth in GDP. This model assumes that for every 1.0% growth in inflation-adjusted GDP, the demand for physician services will grow by 0.5%. GDP was extrapolated at a growth rate of 4.4%, which is its historic average.

In the second, health care spending was extrapolated based on the goals of health care reform, which called for growth to decline from its historic level of 2.5% above GDP to 1.0% above GDP between 2010 and 2020. Current health care expenditures were obtained from Centers for Medicare and Medicaid Services³⁹ and adjusted for the Medical Care Consumer Price Index, which adjusts for price inflation in both commodities (ie, drugs, equipment, and supplies) and services.⁴⁰ Future health care spending assumed that the Medical Care Consumer Price Index would be 5.3%, which was its average during the period from 1986 to 2006 and is almost double the urban Consumer Price Index.

RESULTS

Health care reform and future demand for physicians

In 2009, the United States spent almost \$2.5 trillion on health care, 17.2% of its GDP.⁴¹ Based on projections by the President's Council of Economic Advisors¹² and the Congressional Budget,¹³ per capita health care spending will be 65% greater in 2025 than in 2009 and will account for 25% of GDP. Reducing the rate of growth of health care spending from its historic average of 2.5% above GDP to 1.0% above GDP would delay by a full 20 years the date at which health care would account for 25% of GDP. However, because GDP grows, it would delay by only 8 years the time until health care spending grew by 65%, and this delay would be only 6 years if health care spending grows at a rate of 1.5% above GDP, as projected recently.¹⁴ By 2030, per capita health care spending is likely to be 65% greater in constant dollars than today. Some of this increase will be a result of higher costs of new technologies, but most will result from growth in the quantity of beneficial services.⁴² Beneficial services are expected to grow faster than spending overall, as the added costs of new services are balanced by decreased reimbursement per unit of service.¹⁴

What does this mean for the providers of service? Between 1990 and 2005, during which GDP increased by 56% and health care spending by 85% in constant dollars,⁴³ the labor force in physicians' offices, including nurses, technicians and others, increased by 66%⁴⁴ and physician supply increased by 44%. Similar relationships between GDP, health care spending, health care labor force, and physician supply were chronicled during the longer period from 1929 to 2000^{17,18} and were drawn on to project the demand for physician services that is shown in Figure 1. This projection of demand corresponds to the projection of demand that was derived from estimates of future health care spending growth at a rate of 1.5% above GDP. Figure 1 also illustrates the lesser demand that would

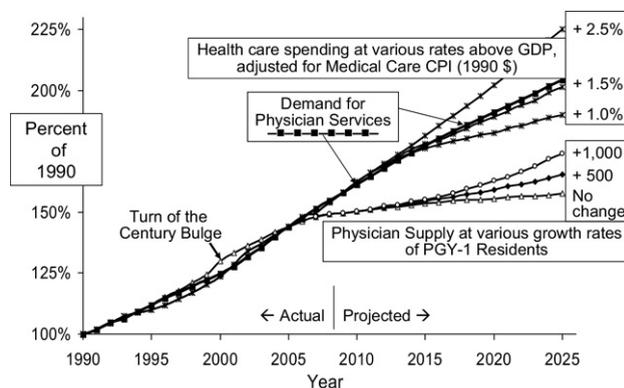


Figure 1. Physicians, health care spending, and the demand for physician services. The lower set of curves displays the historic supply of patient care physicians and projections of physician supply under circumstances of no change in the numbers of PGY1 residents, increases of 500 annually and increases of 1,000 annually beginning in 2012. The upper set displays historic health care expenditures and projections under circumstances of expenditure growth at a level 2.5% greater than the growth of the gross domestic product (GDP) (the historic level), 1.5% greater and 1.0% greater, adjusted for the Medical Care Consumer Price Index (CPI). A calculated estimate of the demand for physician services (—■—■—■—), derived from earlier work,^{17,18} tracks the middle expenditure curve. All estimates are expressed in per capita terms. Dollar figures are in constant 1990 dollars. Data are displayed as a percent of 1990. The period of physician surpluses is designated as “Turn of the Century Bulge.”⁴⁵

occur if health care spending grew at only 1.0% above GDP and the greater demand that would occur if it continued at 2.5% above GDP.

How do these estimates of demand relate to the projections of supply? Between 1990 and 2008, the supply of physicians closely tracked both the calculated demand and the actual adjusted expenditures, except for the period from 1996 to 2004 when there was a transient surplus of physicians, which is represented as the “turn-of-the-century bulge” in physician supply that was projected a decade earlier.⁴⁵ After 2006, physician supply and demand diverged sharply, creating a current physician shortage of approximately 8.0%, which corresponds to many current market perceptions.²¹ If the rate of residency training is not increased, supply and demand are projected to diverge more over time, leading to a potential physician shortage of >20% in 2025.

If instead, residency training is increased by 500 PGY1 positions annually beginning in 2012, the gap between supply and demand could narrow to 18% in 2025, and it would narrow further, to 14%, if PGY1 positions grew by 1,000 annually. Expressed as numbers of physicians, there would be a gap of 214,000 physicians in 2025 if residency training does not increase, 178,000 if training capacity is increased by 500 annually, and 138,000 if it increased by

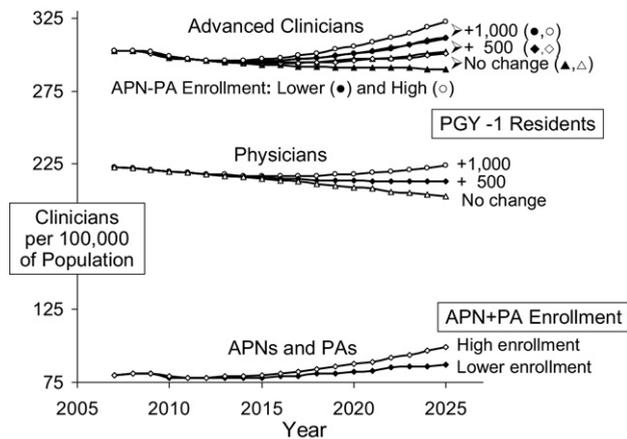


Figure 2. Physicians and advanced clinicians. The lower set of curves displays the per capita supply of advance practice nurses (APNs) and physician assistants (PAs) under conditions of lower enrollment, similar to current trends, and a high trend alternative. The middle set displays the per capita supply of patient care physicians under circumstances of no change in the numbers of PGY1 residents, increases of 500 annually and increases of 1,000 annually beginning in 2012. The upper set combines these to display the combined workforce of advanced clinicians at 3 levels of PGY-1 and 2 levels of APN + PA enrollment.

1,000 annually. Under each of these scenarios, the projected shortages would narrow by approximately 5.0% if the rate of spending were constrained from GDP + 1.5% to GDP + 1.0%, but only if this decrease in spending was on the basis of decreases in the volume of service and not on the basis of lower reimbursements per unit of service. Conversely, the projected shortages would widen by an additional 8% in 2025 if spending growth was closer to the historic rate.

Advanced clinicians

Figure 2 displays projections of the supply of physicians, APNs plus PAs, and the combined supply of all 3 disciplines (advanced clinicians) during the period from 2007 to 2025, expressed in per capita terms. Results are shown for 3 levels of physician training (no change and increases of 500 and 1,000 PGY1s) and for 2 levels of education for APNs and PAs (lower enrollment, as forecasted from current trends, and a high-enrollment alternative).

In 2007, there were 303 advanced clinicians per 100,000 of population, 35% more than the number of physicians alone. After a lag of a few years because of the lack of growth of NP enrollment between 1997 and 2007,³³ the number of APNs plus PAs is projected to slowly increase. However, per capita physician supply will decline, even if 500 additional PGY1 residents were trained annually. Combining these 2 trends, the supply of advanced clinicians would return to the 2007 baseline by 2025 under the lower-

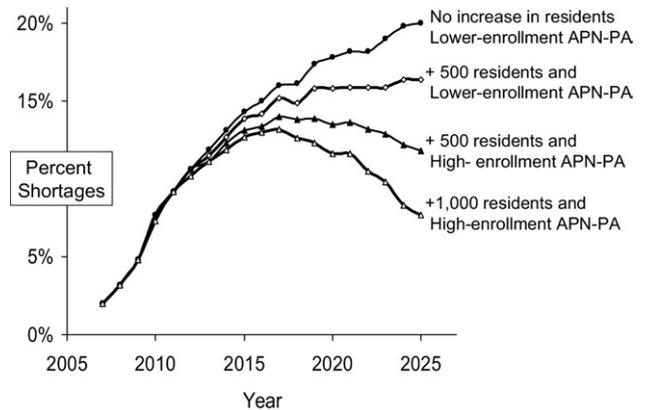


Figure 3. Physician shortages under various training scenarios. Differences between the number of advanced clinicians (from Fig. 2) and the demand for physician services (from Fig. 1) are expressed as a percent of physician supply under circumstances of varying levels of residency training and advance practice nurses (APNs) plus physician assistants (PAs) enrollment.

enrollment scenario for APNs and PA, and it would exceed the baseline by approximately 3% if APN plus PA training followed the high-enrollment scenario. Increasing physician training by 1,000 PGY1 positions annually would increase the total supply of advanced clinicians by 3% in 2025 under the lower-enrollment scenario for APNs plus PAs and by 8% under the high-enrollment scenario. This latter estimate of 8% growth by 2025 appears to be the maximum that could reasonably be expected from the educational resources in these 3 disciplines, although it is unlikely to be achieved. Rather, under the most likely scenarios of APN plus PA training, and with an additional 500 PGY1 residents annually, the per capita supply of advanced clinicians will be the same in 2025 as it is today.

Estimates of shortages

Figure 3 displays the projected shortages of advanced clinicians under 4 of the many permutations of physician, APN, and PA training scenarios, expressed as a percent of the demand for physician services. The scenario that combines 500 additional PGY1s annually and lower enrollment levels for APNs and PAs, which we believe is achievable, would result in long-term shortages of approximately 15%, double the current level of shortage. If PGY1 positions remained unchanged, which is not likely, these shortages would exceed 20% (upper curve). Conversely, the gap could narrow to 12% if increases in PGY1s of 500 positions annually were coupled with high enrollment of APNs and PAs, and narrow still more if PGY1s increased by 1,000 annually, neither of which is likely. Each of these estimates of shortage is based on growth in health care spending at 1.5% above GDP, which has been cited as most likely.^{14,16}

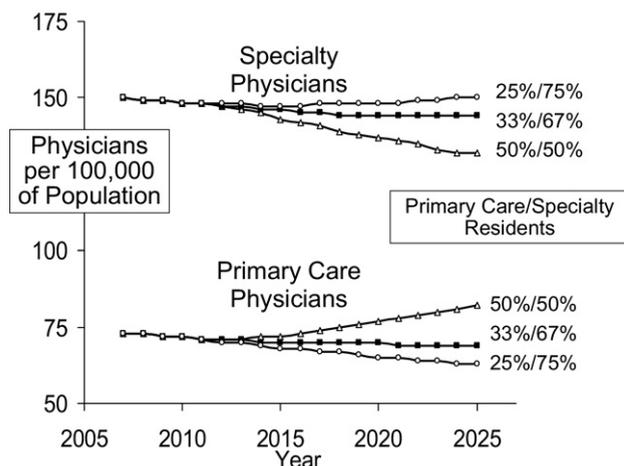


Figure 4. Primary care and specialty physicians. The supply of primary care and specialty physicians is displayed under circumstances of an increase in the number of PGY1 residents of 500 annually and various percentages of residents entering careers in primary care and specialties.

As indicated here, slower growth, if related to lower volumes of service, could narrow the gap by as much as 5.0%, and faster growth would widen it.

Primary care and specialty physicians

Primary care has been highlighted as an arena of special concern. Figure 4 displays the numbers of primary care physicians and specialists under the middle physician growth scenario (500 additional PGY1 residents annually), with various percentages of residents entering primary care and specialties and both low and high growth rates for APNs and PAs. If one-third of all residents enter office-based primary care, the supply of primary care physicians in 2025 would be relatively unchanged from today, at 70 per 100,000, which is within the historic range.⁴⁶ This static supply would be accompanied by a small decline in the supply of specialists. Increasing the proportion of physicians entering primary care to 50% would elevate the supply of primary care physicians beyond the historic range, and further decrease the supply of specialists. Conversely, shifting the balance to 25% primary care and 75% specialists would hold specialist supply flat, and cause a progressive contraction of primary care supply to levels well below its historic range.

Primary care and specialty advanced clinicians

The projections of primary care and specialty physicians in Figure 4 are of statistical interest, but they do not reflect the realities of the workforce to which APNs and PAs also contribute. The combined workforce of advanced clinicians is depicted in Figure 5. As in Figure 4, this portrays

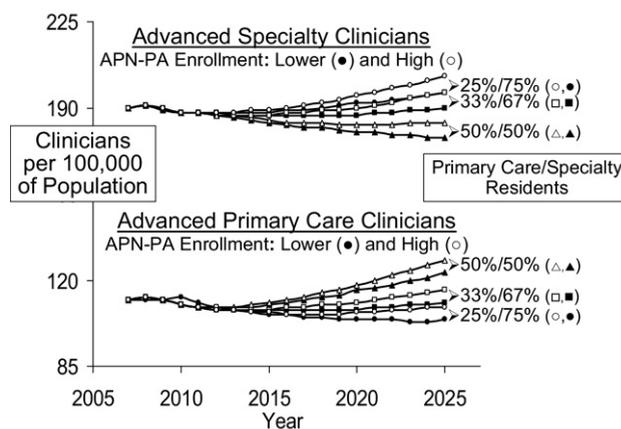


Figure 5. Primary care and specialty advanced clinicians. The supply of primary care and specialty advanced clinicians (physicians + advance practice nurses [APNs] + physician assistants [PAs]) is displayed under circumstances of an increase in the number of PGY1 residents of 500 annually, lower or high APN + PA enrollment and various percentages of residents entering careers in primary care and specialties.

the circumstances under which the number of PGY1 residents would increase by 500 annually.

In 2007, there were 190 advanced specialty clinicians and 112 advanced primary care clinicians per 100,000. If residency training is increased by 500 PGY1s annually, with 33% of residents entering office-based primary care, and if the training of APNs and PAs proceeds at the lower enrollment rate, the supply of advanced primary care and specialty clinicians will be similar to today's supply in 2025. If instead, 50% of residents enter primary care and 50% enter specialties, the per capita supply of advanced primary care clinicians would be 10% greater, and specialty supply would decrease by 6%. Conversely, changing the mix to 25% primary care and 75% specialties would diminish the supply of advanced primary clinicians by 7%, and increase the supply of specialists by 3%. Increasing the training programs for APNs and PAs to the high-enrollment level would yield marginal increases in each scenario. With a 33% and 67% mix of primary care and specialty residents, both primary care and specialty clinicians would increase by 3% in 2025; but with a 50% and 50% mix, primary care would increase by 14% and specialist supply would decline by 3%; and with 25% and 75% mix, primary care supply would decrease marginally and specialist supply would increase by 7%. Although meaningful, these variances in supply are small in proportion to the large gap between supply and demand overall.

DISCUSSION

In 2004, Cooper concluded, "physician shortages are emerging and they will probably worsen over the next two

decades. By 2020 or 2025, the deficit could be as great as 200,000 physicians—20% of the needed workforce.”¹¹ The current exercise reassesses this conclusion in the context of health care reform and in consort with measures of the supply of APNs and PAs, whose scope of practice broadly overlaps that of physicians.¹¹ Its results are not radically different. Even under optimistic circumstances, the per capita supply of advanced clinicians will not be substantially different in 2025 than it is today, and it will be less than today during most of the intervening years. In the meantime, demand, as estimated from the economic goals of health care reform, will continue to grow and the number of clinicians to fill that demand will grow even beyond our projections when gender and lifestyle factors are considered.³⁷ It seems possible that, with maximal effort, supply could keep up with increases in demand from here forward but it will not be possible to close the existing gap, and if residency positions are expanded <2% annually it will not even be possible to keep up. The most likely scenario is one of flat supply in the face of rising demand, leading to long-term shortages of advanced clinicians of approximately 15%, double the current level.

We limited this exercise to physicians, APNs, and PAs because they are most directly involved in the delivery of what patients recognize as physician services. Together they constitute 7% of the entire health care labor force⁴⁴ and almost 90% of licensed and regulated first-contact clinicians. We considered them together, although their training and prerogatives differ, but so do the training and practices of physicians in various specialties. In addition, although the work effort of APNs and PAs is generally assumed to be less than that of physicians, we did not differentiate effort among disciplines, nor did we differentiate physician effort in relation to age or sex. Therefore, our projections should be considered as maximum estimates of supply. We did not separately consider other professionals whose scope of practice overlaps those that we assessed, such as dentists, pharmacists, psychologists, clinical social workers, physical therapists, and complementary providers. However, we are not aware of workforce changes that will materially affect the supply-and-demand relationships reported.

Our demand projections were built from authoritative estimates of future health care spending.¹²⁻¹⁶ Although there are likely to be short-term economic fluctuations, these projections create a long-term planning framework that has some validity and mirrors the planning framework used in the process of health care reform. The transformation of spending projections to the demand for physician services is based on previous econometric studies.^{17,18} It is confirmed by the strong relationship we observed between

demand, as calculated in this manner, and projections of health care spending after adjustment for the prices of labor and materials, which approximate the volume of service. However, we did not consider the decreasing number of hours worked by physicians³⁷ or the increasing number of those hours devoted to documentation, compliance, and other nondirect patient care services by all clinicians. These could increase the demand for advanced clinicians by an additional 10% to 15%.

Of the various supply assumptions, those for APNs and PAs are the most secure because both disciplines are in established growth phases. Given the limitations of faculty and clinical training sites that APN and PA training programs face, the lower-enrollment scenario is most likely and the high-enrollment scenario seems beyond reach.

Estimates of growth in physician supply are more uncertain. Although medical school capacity has been increasing,⁴⁷ the limiting factor in the growth of physician supply is residency positions, which have increased episodically through the decades.^{31,32,48} During the last period of medical school expansion in the 1970s, PGY1 positions in residencies approved by the ACGME grew an average of 5.5% annually.³¹ However, when medical school expansion abruptly ceased in 1979, residency growth ceased for a decade. It was not until 1989 that growth resumed, although it was at half the earlier rate. However, this growth abruptly ceased in 1996, coincident with the Balanced Budget Act of 1997, which capped the number of residency positions supported by Medicare.³¹ After a 6-year pause, residency growth resumed again in 2001 at an apparent rate of approximately 2.0% annually,⁴⁹ although the inclusion of osteopathic physicians in ACGME statistics and similar factors accounted for as much as half of this apparent growth. Some of the real growth resulted from added positions in Veterans Affairs hospitals, but most was in nonfederal hospitals with support from the hospitals. It is uncertain if this will continue under the reimbursement pressures of health care reform.

Other avenues for growth in residencies exist. A recent congressional bill would have added support for 15,000 residency positions at all levels (approximately 3,500 PGY1 positions), enough to finance Medicare's portion of growth at 2.0% annually for 7 years, but it was not enacted. However, if shortages deepen, Congress might be more willing to act. There also is a body of opinion that some residencies could be shortened.⁵⁰ During the 1970s, PGY1s accounted for 30% of all residents, but by 1990 this had dropped to 22%, where it remains today. This is equivalent to a lengthening of residencies from an average of 3.5 years in 1970 to 4.5 years. Shortening residencies by an average of 6 months would free up enough positions to permit a 10% growth in PGY1s.

So far, federal efforts to ameliorate physician shortages have been directed toward increasing the proportion of physicians who choose primary care or general surgery, both through the Recovery Act and the Affordable Care Act. However, it will be difficult for physicians in any discipline to discharge their responsibilities without adequate numbers of physicians overall.

The conventional alternative has been to include more NPs and PAs, not only in primary care but in specialty practices as well.¹¹ What is apparent is that APNs and PAs are necessary to sustain the workforce in both primary care and the specialties, but not sufficient to compensate for the growing shortages of physicians in both. The reason lies in the math: more than two-thirds of advanced clinicians are physicians and, in per capita terms, the nation is training fewer each year. Although the supply of APNs and PAs is growing in percentage terms, such increases contribute proportionately less to the aggregate supply of physicians plus APNs and PAs.

CONCLUSIONS

What must the nation do? First, the supply of all 3 disciplines that constitute the workforce of advanced clinicians must be maximally expanded, but that will not be enough. Parallel efforts must be made to strengthen the infrastructure of clinical practice and to broaden the spectrum of health care workers who can assist in delivering services. Finally, the future roles of physicians must be squarely addressed. It seems inevitable that in the coming era of shortages, physicians must be directed toward those elements of practice that demand the direct participation of physicians most. The lack of adequate numbers of surgeons and others who bring unique skills to the care of patients will cripple the system no matter how else it is staffed.

Even before health care reform, the nation was headed for serious physician shortages and reform has only made it worse. Without an adequate supply of highly skilled generalist and specialist physicians, the fundamental goals of health care reform cannot be achieved and the health of the nation will be at risk.⁵¹ These realities must be at the forefront of the health care agenda.

Author Contributions

Study conception and design: Sargen, Hooker, Cooper

Acquisition of data: Sargen

Analysis and interpretation of data: Sargen, Hooker, Cooper

Drafting of manuscript: Sargen, Hooker, Cooper

Critical revision: Sargen, Hooker, Cooper

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APPENDIX H:
Family Physicians and Physician Assistants: Team-Based Family Medicine
AAFP-AAPA Joint Statement



AMERICAN ACADEMY OF
FAMILY PHYSICIANS

STRONG MEDICINE FOR AMERICA



American Academy of
PHYSICIAN ASSISTANTS
Connecting PAs, Transforming Care

Family Physicians and Physician Assistants: Team-Based Family Medicine

**A Joint Policy Statement of the
American Academy of Family Physicians and
American Academy of Physician Assistants
February 2011**

The primary authors of this policy paper were Ellen Rathfon, Senior Director, Professional Advocacy, for the American Academy of Physician Assistants, and Gail Jones, MAOA, MICT, Manager of Practice Management, for the American Academy of Family Physicians. The AAFP and AAPA boards of directors each approved the policy on February 16, 2011.

Executive Summary

The roles of physician–physician assistant (PA) teams have evolved over the past 50 years in response to shortages in the primary care physician supply, changing health care needs of the population, and the demonstrated value of this team-based model of care. Effective practice teams play a vital role in improving the quality of and access to health care in the United States, particularly in the delivery of family medicine.

The relationship between family physicians and PAs began in the earliest days of the PA profession and has progressed through development of the first education programs, deployment of the first PAs into the field, and nearly five decades of team practice. Representatives from the American Academy of Family Physicians (AAFP) serve on the PA program accreditation and PA certification commissions. Nearly a dozen PA education programs are found within departments of family medicine. Both the American Academy of Physician Assistants (AAPA) and AAFP have had numerous policies over the years supporting the concept of patient care provided by integrated physician-PA teams.^{1,2} Both professions include the ability to lead or practice within an interdisciplinary care team among their professional competencies.^{3,4} On the front lines of primary care, individual family physicians and PAs work together to provide accessible, high-quality care for patients and communities, and family medicine is the single largest PA practice specialty.

AAFP and AAPA recognize that family physicians and PAs share common goals of providing team-based, patient-centered care and improving the health of patients and communities. In addition, PAs and family physicians share concerns regarding the decline in the primary care workforce, the need for team-oriented practice and models of care such as the patient-centered medical home, and the importance of interprofessional educational opportunities to improve the training of family physicians and PAs. Acknowledging the critical role that teams of PAs and family physicians play in improving access to care and the unique relationship that the professions share, AAPA and AAFP offer the following joint statements on family physicians, PAs, family medicine, and the patient-centered medical home.

- 1. AAFP and AAPA believe that family physicians and PAs working together in a team-oriented practice, such as the patient-centered medical home, is a proven model for delivering high-quality, cost-effective patient care. National and state legal, regulatory, and payment policies should recognize that PAs function as primary care providers in the patient-centered medical home as part of a multidisciplinary, physician-directed clinical team.**
- 2. AAFP and AAPA encourage interprofessional education of medical students, family medicine residents, and PA students throughout their educational programs.**
- 3. AAPA and AAFP encourage education programs of both professions to expand family medicine rotation sites for PA students, medical students, and residents.**
- 4. AAPA and AAFP should continue to be represented on the accrediting and certifying bodies of the PA profession (Accreditation Review Commission on Education for the**

Physician Assistant [ARC-PA] and National Commission on Certification of Physician Assistants [NCCPA], respectively).

5. AAFP and AAPA believe that national workforce policies should ensure adequate supplies of family physicians and PAs in family medicine to improve access to quality care and to avert anticipated shortages of primary care clinicians.

6. AAPA and AAFP promote flexibility in federal and state regulation so that each medical practice determines within a defined spectrum appropriate clinical roles within the medical team, physician-to-PA ratios, and supervision processes, enabling each clinician to work to the fullest extent of his or her education and expertise.

The future of health care delivery will require interprofessional teams of health care professionals working together to provide patient-centered care. AAFP and AAPA are committed to building on the common ground that family physicians and PAs share in order to ensure an adequate, well-educated family medicine workforce to meet the health care needs of the U.S. population.

Introduction

The future of health care delivery will require interprofessional teams of health care professionals working together to provide patient-centered care. AAFP and AAPA are committed to building on the common ground that family physicians and PAs share in order to ensure an adequate, well-educated family medicine workforce to meet the health care needs of the U.S. population.

Family medicine is the medical specialty that provides continuing, comprehensive health care for the individual and family. It is a specialty in breadth that integrates the biological, clinical, and behavioral sciences. The scope of family medicine encompasses all ages, both sexes, each organ system, and every disease entity.⁵

Family medicine today is rooted in the historical generalist tradition. The practice of a family physician is multidimensional, combining knowledge, skill, and a unique approach to care. The patient-physician relationship in the context of the family is central to this process and distinguishes family medicine from other specialties. Above all, the scope of family medicine is dynamic, expanding, and evolutionary. AAFP defines a specialist in family medicine as a physician who is certified by the American Board of Family Medicine, has completed a three-year family medicine residency approved by the Accreditation Council for Graduate Medical Education or the American Osteopathic Association, or maintains eligibility for active AAFP membership.⁶

A PA is a graduate of an accredited PA education program who is authorized by the state to practice medicine with the supervision of a licensed physician. PAs are educated to provide diagnostic, therapeutic, and preventive care. They receive a broad, generalist, master's-level medical education that prepares them well to practice with family physicians. PA program graduates pass a certifying exam administered by the NCCPA and obtain a state license.

Workforce

Fifty years ago, a shortage and maldistribution of physicians and insufficient access to primary health care services were two factors that led to the development of the PA profession. Today, similar dynamics in the health care system will require significantly more family physicians and PAs to help meet the demand.

There are approximately 269,000 primary care physicians in the United States. Of those, about 38 percent are family physicians. In 1961, half of U.S. physicians were generalists, primarily general practitioners. Since then, the percentage has dramatically declined.⁷

The PA workforce has risen from about 250 in 1970 to approximately 75,000 in 2010. PAs work in nearly all areas of medicine and surgery; the single largest specialty category is family medicine, representing 25 percent (19,000) of PAs. Family medicine is followed by general internal medicine and internal medicine subspecialties (17 percent), emergency medicine (10 percent), orthopedics (10 percent), pediatrics (4 percent), general surgery (3 percent), and all other surgical specialties (13 percent).⁸

PA workforce trends tend to mirror those of the physician workforce in the United States. However, while the overall *percentage* of PAs in primary care has declined since the mid-1990s, the *total number* of PAs in family medicine has increased by almost 80 percent – from 10,700 in 1996 to 19,000 in 2009, due to overall growth of the profession.^{8,9}

Workforce prognosticators not only are predicting a shortage of primary care physicians, they also predict that there will not be enough PAs to meet patient demand over the next 20 years.^{10,11,12,13}

Even with increased numbers of physicians and PAs, family medicine will still face the challenges of competing with higher-paying specialties, recruiting candidates to rural communities, and reduced medical resident hours, which have increased demand for PAs in that sector.^{14,15}

PA Education

Most matriculants enter a PA program with a bachelor's degree, prerequisite courses in basic and behavioral science, and an average of three years of health care experience.¹⁶ The master's-level programs, based on the physician education model, average 27 months, including 12 months of didactic education and 15 months of clinical rotations.¹⁷ In some interdisciplinary programs, PA students and medical students share classes, facilities, and clinical rotations. There are currently 154 accredited PA education programs; nearly a dozen are located within departments of family medicine. New York has the greatest number of PA programs (22), followed by Pennsylvania (16), California (9), and Texas (8).¹⁷

PA programs are accredited by the independent ARC-PA, supported by AAFP, AAPA, the American Academy of Pediatrics, American College of Physicians, American College of Surgeons, American Medical Association, and the Physician Assistant Education Association. These organizations collaboratively develop standards and assess program compliance. ARC-PA is the sole agency responsible for accrediting PA programs in the United States.

Certification and Licensure

To begin practicing, a PA program graduate must pass the Physician Assistant National Certifying Exam, administered by the NCCPA, and obtain an individual license from a state medical, osteopathic, or PA licensing board. All 50 states, the District of Columbia, and the majority of U.S. territories have enacted laws regulating PA practice. All licensing jurisdictions except the U.S. Virgin Islands allow physicians to delegate prescriptive authority to the PAs they supervise. To maintain certification, PAs must complete 100 Continuing Medical Education credits every two years, and pass a recertification exam every six years.

Scope of Practice

Each PA's scope of practice is defined by the individual's education and experience, state law, facility policy, and physician delegation. The PA's scope of practice is mainly determined by the supervising physician's scope of practice and his or her delegatory decisions. The physician evaluates the PA's competency and performance, and together they develop a team approach

based on both the PA's and physician's clinical skills and patient needs. The physician and PA share ethical and legal responsibility for the care of a patient.

In licensed health care facilities, including hospitals, nursing homes, and surgical centers, the facilities have a role in determining the scope of practice of PAs who practice in their institutions. PAs usually are credentialed by the medical staff and authorized through privileges in a manner parallel to that used for physicians. These privileges must be consistent with state law.¹⁸

Supervision and Team Practice

The role of the family physician is one of direction and responsible supervision. AAFP guidelines on supervision recognize the diversity of practice settings, the need at times for off-site supervision, and the importance of clarity about responsibilities of individual team members and about how physician oversight will be accomplished.¹⁹

The ability to lead or participate in an integrated team is included among the competencies for both family medicine residents and PA program graduates.^{3,4} AAFP policy on integrated practice arrangements describes integrated practice as “interdependent,” with various team members assuming “lead responsibility” for aspects of care based on their competencies and skills. The policy “recognizes the ... importance of an interdependent team approach to health care that is supervised by a responsible licensed physician.”²⁰

The model of physician-PA practice has been described as “delegated autonomy” and compared to the relationship between attending and resident physicians. Although PAs and family physicians who spend entire careers together establish far greater depth and breadth of teamwork than can be established during the brief tenure that attending physicians and residents share, there are many similarities between the two associations. These key components include delegated autonomy, clear lines of accountability, and the reciprocal responsibilities of providing supervision and seeking consultation.

The PA and physician define the PA's role in the practice, typically through a written delegation agreement (sometimes called a “protocol”) describing the types of responsibilities the PA will assume and how the physician will provide oversight. Most PAs practice fairly autonomously within their scope of responsibility, consulting with the physician whenever clinical questions exceed the PA's expertise or when physician involvement is necessary for care. As the PA gains experience and can assume greater responsibility and autonomy, periodic adjustment of the delegation agreement benefits the team and the practice.

Family physicians who supervise PAs agree to share responsibility for the care provided. This is a benefit, not a burden. Adding a PA to a practice allows the physician to focus on patient care that requires his or her full expertise. The PA autonomously performs appropriately delegated medical care. Thus, the care provided by the PA is directed and its quality is assured by the physician. The most effective physician-PA team practices provide optimal patient care by designing practice models where the skills and abilities of each team member are used most efficiently.²¹

Payment

Payment from third-party payers is typically made to the PA's employer. Medicare pays for physician services performed by PAs at 85 percent of the Physician Fee Schedule. If billed under Medicare's "incident to" or shared visit rules, services delivered by PAs are paid at the full physician rate. For Medicaid, all 50 states and the District of Columbia cover medical services provided by PAs under their Medicaid fee-for-service or Medicaid managed care programs at either the same or a slightly lower rate than that paid to physicians. Nearly all private payers cover services provided by PAs at a rate that ranges between 85 percent and 100 percent of the physician rate.

PA Roles in Family Medicine

Effective physician-PA teams improve patient access and satisfaction, increase revenues, and reduce physician workload.^{22,23} In family medicine practices, PAs perform physical examinations, diagnose and treat illnesses and injuries, order and interpret lab tests, prescribe medications, manage patients with chronic conditions, perform minor surgical procedures, provide patient education, make hospital or nursing home rounds, provide home visits, and take call.²⁴ Of the 19,000 PAs in family medicine, 54 percent work in physician solo or group practices and 23 percent work in federally certified rural health clinics, federally qualified health centers, or other community health centers. The rest work in settings such as, hospitals, HMOs, correctional systems, home health agencies, and long-term care facilities.²⁵

PAs enhance care coordination. PAs are responsible for the day-to-day care of patients, consulting with their supervising physicians for cases requiring more advanced medical knowledge. In many family medicine practices, the presence of PAs allows patients to be seen promptly, knowing that any routine problems will be handled effectively and that the expertise of the physician is available when needed. In some practices, PAs with expertise in a certain area of practice – for instance, adolescent gynecology, wound care, or diabetic counseling – may be the designated clinician for patients with that condition. For example, a large group practice that tapped PAs to spend nearly all of their time on planned visits for patients with chronic conditions in poor clinical control saw dramatic improvement in composite screening and outcomes scores in the patients they managed.²⁶ In a community health center with more than two dozen physicians, PAs, and nurse practitioners, the physicians take hospital calls and deliver babies, so are not always in clinic. Each clinician has his or her own panel of 1,200 to 1,500 patients, enabling same-day access, dropping the no-show rate, and increasing productivity.²⁷

Patients are happy with care provided by PAs. Survey responses from Medicare patients indicate that they were generally satisfied with their medical care and did not distinguish preferences based on type of provider.²⁸ Similarly, a study of patient satisfaction in a large managed care organization found that patients were as satisfied with care provided by PAs as they were with care provided by physicians.²²

Practices find that PAs are cost-effective. A California HealthCare Foundation (CHCF) look at specialty practices across the United States found that the practices reported being financially stable in large part because of the integration of PAs and nurse practitioners (NPs). The study also found that in many practices, the increased patient volume was divided: PAs and NPs saw

routine follow-up patients, and physicians saw more acute, complex cases that tended to be paid at higher rates.²⁹ The Medical Group Management Association reports for every dollar of collected professional charges that a PA generated for a primary care practice in 2009, the employer paid on average 36 cents compensation to the PA.³⁰

Studies identify high-quality care with physician-PA teams. The CHCF team also found “maintenance or improvement in quality of care” where PAs or NPs were employed.²⁹ Four studies found that effective utilization of physician-PA teams reduced hospitalizations among nursing home residents.^{31,32,33,34} A study of HIV care provided by PAs and NP HIV experts found the quality was similar to that of physician HIV experts and generally better than that of physicians who were not HIV experts.³⁵

The physician-PA team is effective because of the similarities in physician and PA education, the PA profession’s commitment to supervised practice, and the efficiencies created by utilizing the strengths of each professional in the clinical practice setting. The Pew Health Commission, as far back as 1998, recognized the value of the physician-PA team approach: “The traditional relationship between PAs and physicians, the hallmarks of which are frequent consultation, referral and review of PA practice by the supervising physician, is one of the strengths of the PA profession. The characteristics of this relationship are also considered to be the elements of professional relationships in any well-designed health system.”³⁶

PA Roles in the Patient-Centered Medical Home

The patient-centered medical home is a model of practice based upon providing comprehensive primary care using a team-based approach. In the patient-centered medical home model, each patient has a relationship with a primary provider who manages care for that patient. Care is provided by an integrated team of professionals and support staff. With physician oversight, each team collectively takes responsibility for the ongoing care of a patient. The team member assuming lead responsibility for various aspects of patient care is determined by matching individuals’ competencies and skills with patient needs. Ideally, each member of a team practices to the highest level of his or her education, knowledge, skills, and abilities.

Since PA education is rooted in providing team-based care, PAs are particularly suited to the patient-centered medical home. As key members of the team, PAs can help to ensure continuity, comprehensiveness, and coordination of care, working with family physicians and other health care professionals.

Examples of PA roles in medical home practices illustrate the flexibility of the physician-PA team:

- In a small family practice in Maine, with one physician and one PA, each has his own panel of patients, and each manages urgent care and chronic disease patients, covering for one another as needed to maintain their open access schedule.
- A PA in family medicine manages a clinic in rural upstate New York. The community owns the clinic and employs the PA and a supervising physician. The PA is the primary provider and patient care team leader in the clinic. The supervising physician, who runs a family

practice in the next town, provides oversight, is available to the PA by phone, and stops in several times a week. This PA's practice is recognized as a patient-centered medical home in one of the state's pilot programs.

- In a larger practice near Albany, New York, a PA spends about half her day seeing her own panel of assigned patients and about half her day on acute same-day patients, helping to limit patient waiting time.
- A large Wisconsin health system has organized its primary care physicians and PAs into teams of 2-3 physicians and 1-2 PAs, placing each team or "pod" into its own hallway, and using one particularly high-performing physician-PA team as the model for the practice. The patients choose their primary provider but get to know all the clinicians on the team, which helps with continuity and efficiency.

Position Statements of the AAFP and AAPA

Because family physicians and PAs practice in teams providing medical care to patients, they experience many of the same professional challenges, making it an easy task to find common ground on which to develop the following policy statements.

1. AAFP and AAPA believe that family physicians and PAs working together in a team-oriented practice, such as the patient-centered medical home, is a proven model for delivering high-quality, cost-effective patient care. National and state legal, regulatory, and payment policies should recognize that PAs function as primary care providers in the patient-centered medical home as part of a multidisciplinary, physician-directed clinical team.

AAPA and AAFP support practice models, such as the patient-centered medical home, where there is joint communication and decision-making to meet the health care needs of patients. Such models require a shared commitment to achieving positive patient outcomes, a mutual understanding of each team member's roles, and effective communication.³⁷ In every practice model, all professionals should ensure that patients are given the name and title of every person who treats them. This essential part of patient care in any practice takes on even more significance in integrated practices, such as the patient-centered medical home, where team care is the norm.

According to the Institute of Medicine, enhanced infrastructures are needed to ensure effective and timely communication among patients and clinicians in order to improve the quality of patient care.³⁷ Since communication is vital to the success of every physician-PA team, better health information technology will help to support their practices, particularly those where PAs and family physicians are in separate locations. Computer networks and the use of information technology, medical linkages, and long-distance learning and consultation will provide opportunities to enhance communication about patient diagnosis and treatment. Ideally, such technology should ensure the availability of clinical information at the point of care for all providers and patients. AAFP and AAPA support the use of electronic health records as one critical element of the infrastructure needed to facilitate communication among members of an

effective health care team. The availability of such communication systems will enhance opportunities for primary care services to be delivered by integrated teams of providers.

AAPA and AAFP recognize the paucity of research about integrated practice as an opportunity to develop educational resources for each organization's members about professional roles, including delegation and supervision and use of information technology to enhance communication. Innovative models of health care delivery, such as the patient-centered medical home, could serve as examples for such educational efforts. AAFP and AAPA also advocate for research to develop effective systems of teamwork and co-management of patients among family physicians and PAs.

2. AAFP and AAPA encourage interprofessional education of medical students, family medicine residents, and PA students throughout their educational programs.

To foster interprofessional practice, the AAPA and AAFP encourage innovative education programs emphasizing the team approach in medical schools, residency programs, and PA education programs. Medical students, family medicine residents, and PA students must be adequately prepared to work as part of a health care team in order to provide optimal patient-centered care. Interprofessional education will help students and residents better understand the overlapping and complementary skills of the various fields and the importance of interprofessional teams. Communication across disciplines is also extremely important and is best learned during training.

National health care workforce policies should ensure health care providers are adequately educated to work within interprofessional teams. Efforts should focus on providing interprofessional education to both practicing and future clinicians. AAFP and AAPA support policies and funding to explore the effectiveness of interprofessional education, which could include incorporating joint coursework and clinical experience opportunities into educational curricula for medical and PA students; employing faculty from both PA schools and schools of medicine to teach PA and medical students; and offering joint continuing education programs for PAs and family physicians through both in-person and off-site learning.

3. AAPA and AAFP encourage education programs of both professions to expand family medicine rotation sites for PA students, medical students, and residents.

Family physicians often serve as preceptors for students in PA education programs. As preceptors, they become involved in the teaching process and are able to evaluate the skills and abilities of PAs. This function is beneficial to both the preceptor and the PA, as many preceptors go on to hire PAs for their practice. Due to their generalist education and comprehensive approach to care, family physicians are particularly well equipped to serve as faculty and preceptors for PA programs and such opportunities should be promoted.

4. AAPA and AAFP should continue to be represented on the accrediting and certifying bodies of the PA profession (ARC-PA and NCCPA, respectively).

AAFP and AAPA remain committed to their participation on the ARC-PA, the independent body authorized to accredit qualified PA educational programs leading to the professional credential, Physician Assistant. Both organizations cooperate with the ARC-PA as collaborating

organizations to establish, maintain, and promote appropriate standards of quality for entry-level education of PAs and to accredit educational programs that meet the minimum requirements outlined in these standards.

AAPA and AAFP also share a commitment to continue their participation on the NCCPA, the only nationally recognized certifying body for PAs in the United States. Certification by NCCPA indicates satisfactory completion of an accredited PA educational program and passage of the national certification examination. The exam is administered by NCCPA for entry into the PA profession.

5. AAFP and AAPA believe that national workforce policies should ensure adequate supplies of family physicians and PAs in family medicine to improve access to quality care and to avert anticipated shortages of primary care clinicians.

The PA and family medicine communities both are confronted with workforce issues of predicted clinician shortages and increased proportions of clinicians practicing in subspecialties. A 2008 study predicted a shortage of 35,000-44,000 adult primary care physicians by 2025.¹⁰ The latest figures from the Association of American Medical Colleges predict 45,000 too few primary physicians by 2020.³⁸ Data suggest that greater use of PAs is not expected to make up the shortfall.^{10,11,12,13}

AAPA and AAFP are concerned about the level of student interest in careers in family medicine. Fifty years ago, 50 percent of medical graduates chose primary care practice. Today 37 percent of physicians specialize in primary care. Only 30 percent of graduating medical students choose a primary care residency, a percentage that continues to drop.³⁹ Despite a recent uptick in interest seen among new PA graduates, some PA students show initial interest in primary care but decide to go into other specialties and subspecialties. As the number of family medicine practices has decreased, the opportunities for PAs to work in family medicine also have contracted. Both organizations are committed to reversing this decline and encourage workforce development to ensure that there are adequate numbers and types of health professionals to meet the needs of the population.

6. AAPA and AAFP promote flexibility in federal and state regulation so that each medical practice determines within a defined spectrum appropriate clinical roles within the medical team, physician-to-PA ratios, and supervision processes, enabling each clinician to work to the fullest extent of his or her education and expertise.

The physician-PA team is a unique model in the health care world – highly educated physicians overseeing the practice of skilled clinicians who, with a high degree of delegated autonomy, provide medical care to patients. The most effective teams are defined by family physicians and PAs at the practice level to maximize skills of the providers and meet patient needs. Flexibility in federal and state regulations enables physicians to delegate appropriate duties to PAs based on their own assessment of each PA's knowledge, skills, and abilities within their scope of practice. Physician-to-PA ratios and the supervision process should not be restricted in state or federal law. Instead, they should be determined by the physicians, PAs, and facilities involved, based on the needs of the practice and the community. Legislation may provide general boundaries within which physician-to-PA ratios may fall and other guidance for prudent practice.

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APPENDIX I:
Internists and Physician Assistants: Team-Based Primary Care
ACP-AAPA Joint Statement

ACP[®]

AMERICAN COLLEGE OF PHYSICIANS
INTERNAL MEDICINE | *Doctors for Adults*

INTERNISTS AND PHYSICIAN ASSISTANTS: TEAM-BASED PRIMARY CARE

**American Academy of Physician Assistants
American College of Physicians
A Policy Monograph**

2010

INTERNISTS AND PHYSICIAN ASSISTANTS: TEAM-BASED PRIMARY CARE

A Policy Monograph of the
American Academy of Physician Assistants and the
American College of Physicians

This paper, written by M. Renee Zerehi, Manager, Health Policy, for the American College of Physicians and Ellen Rathfon, Senior Director, Professional Affairs, for the American Academy of Physician Assistants, was developed for the Health and Public Policy Committee of the American College of Physicians: David L. Bronson, MD, FACP; Robert M. Centor, MD, FACP ; David A. Fleming, MD, FACP; Richard P. Holm, MD, FACP; Robert A. Gluckman, MD, FACP; Robert McLean, MD, FACP; Mark Liebow, MD, FACP; Richard L Neubauer, MD, FACP; Mark E. Mayer, MD, FACP; Kenneth A. Musana, MBchB; P. Preston Reynolds, MD, FACP ; Matthew P. Rudy; Baligh Yehia, MD; and for the Board of Directors of the American Academy of Physician Assistants: Cynthia B. Lord, MHS, PA-C; Stephen H. Hanson, MPA, PA-C; Patrick E. Killeen, MS, PA-C; William H. Fenn, PhD, PA; Daniel T. Thibodeau, MHP, PA-C; Bruce C. Fichandler, PA; Kate Lenore Callaway; Linda L. Contreras, MPAS, PA-C; Patti Pagels, MPAS, PA-C; Michelle Ona DiBaise, MPAS, PA-C; Jeffrey Katz, PA-C; Alan Hull, PA-C; and James E. Delaney, PA-C. It was approved by the ACP Board of Regents on April 19, 2010, and by the AAPA Board of Directors on April 21, 2010.

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Introduction

The roles of physician–physician assistant (PA) teams have expanded over the past 20 years in response to shortages in the primary care physician supply, changing health care needs of the population, and the outstanding track record of this team-based model of care. Effective interdisciplinary teams play a vital role in improving the quality of and access to health care in the United States, particularly in the delivery of primary care services. In the mid 1960s, an inadequate physician workforce and insufficient access to primary health care services were two factors that led to the development of the PA profession. In 2010, the services of PAs continue to be needed throughout the United States to complement the health care services that physicians provide.

The College first examined the roles of PAs and nurse practitioners (NPs) in primary care in 1993 by appointing a Task Force on Physician Supply that later drafted a position paper that was published in the *Annals of Internal Medicine* in 1994¹. A subsequent paper published in 2000 sought to address concerns about the increasing number and expanding scope of practice of PAs and NPs.² In 2008, the College published a policy monograph on the role of NPs in primary care. It addressed the doctor of nursing degree and the role of NPs in the patient-centered medical home.³ The College recognized the unique complementary care that PAs provide in primary care practices as part of a physician-directed team and felt strongly that a paper focusing solely on PAs in primary care was also warranted. Much like the relationship that PAs and primary care physicians enjoy in health care delivery, this paper is a joint effort of the American Academy of Physician Assistants (AAPA) and the American College of Physicians (ACP).

AAPA and ACP recognize that PAs and physicians share common goals of providing high-quality, patient-centered care and improving the health status of their patients. In addition, physicians and PAs share concerns regarding the decline in the primary care workforce, the need for team-oriented practice and models of care such as the patient-centered medical home, and the importance of interprofessional educational opportunities to improve the training of both physicians and PAs. Acknowledging the critical role PAs and physicians play in improving access to care and the unique relationship that the professions share, AAPA and ACP offer the following position statements on physicians, PAs, primary care, and the patient-centered medical home.

- 1. AAPA and ACP believe that physicians and PAs working together in a team-oriented practice, such as the patient-centered medical home, is a proven model for delivering high-quality, cost-effective patient care. National and state legal, regulatory, and reimbursement policies should recognize that PAs function as primary care providers in the patient-centered medical home as part of a multi-disciplinary clinical team led by a physician.**
- 2. AAPA and ACP encourage training programs from both professions to promote and support opportunities for internists to precept PA students and participate as faculty at PA programs.**
- 3. AAPA and ACP encourage interdisciplinary education of physicians-in-training and PA students throughout their educational programs.**

4. **AAPA and ACP should continue to be represented on the accrediting and certification bodies of the PA profession (ARC-PA and NCCPA).**
5. **AAPA and ACP encourage the creation of an interdisciplinary task force on workforce development. Workforce policies should ensure adequate supplies of primary care physicians and PAs to improve access to quality care and to avert anticipated shortages of primary care clinicians for adults. Workforce policies should recognize that training more PAs does not eliminate the need nor substitute for increasing the numbers of general internists and family physicians trained to provide primary care.**
6. **AAPA and ACP encourage flexibility in federal and state regulation so that each medical practice determines appropriate clinical roles within the medical team, physician-to-PA ratios, and supervision processes, enabling each clinician to work to the fullest extent of his or her license and expertise.**

Background

A physician assistant (PA) is a graduate of an accredited PA education program who is authorized by the state to practice medicine with the supervision of a licensed physician. PAs are trained to provide diagnostic, therapeutic, and preventive care as delegated by a physician. PAs work in nearly all areas of medicine and surgery but the majority work in family/general medicine (24.8%), general surgery and surgical subspecialties (25.1%), and general internal medicine and internal medicine subspecialties (17.2%).⁴ The AAPA estimates that in 2008, approximately 257 million patient visits were made to PAs and approximately 332 million medications were recommended or prescribed by PAs.

PA Workforce

The PA workforce has risen from about 250 in 1970 to nearly 75,000 today. An estimated 38% work in hospitals, 35% are in group practices, and 9% are in solo physician practices. The remainder work in other settings, such as community health centers, free-standing surgical centers, and rural clinics.

PA workforce trends mirror that of the physician workforce in the United States. Since PAs are largely employed by physicians, they follow the specialties where they are most likely to find employment. The majority of PAs practiced in primary care disciplines until the mid-1990s, but since then the percentage of PAs in primary care has steadily declined*¹, paralleling the trend of physicians to specialize or subspecialize. In 1996, 50.8% of PAs worked in family medicine, general internal medicine, and general pediatrics. By 2009, the percent had fallen to 35.7%.⁵ Similarly, the number of third-year internal medicine residents who intended to pursue general internal medicine fell from 54% in 1998 to only 23% in 2007.⁶

Similar to estimates that there will be a primary care physician shortage, it is estimated that the supply of PAs will also not be able to meet future demand.⁷

* While the percentage of PAs in primary care has declined, actual numbers have increased. There were 29,400 PAs in clinical practice in 1996, with 15,000 in primary care. There were nearly 75,000 PAs in clinical practice in 2009, with 27,000 in primary care.

Education

Applicants to PA programs must complete a minimum of 2 years of college courses in both basic and behavioral science prior to PA training. Most PA students enter training with a bachelor's degree and an average of 3 years of health care experience.⁸ There are nearly 150 accredited PA training programs throughout the United States, primarily located at medical schools and teaching hospitals. New York has the greatest number of PA programs (19), followed by Pennsylvania (16), California (10), and Texas (8).⁹ The typical program lasts 27 months¹⁰ and is modeled on physician education. In fact, PA students commonly share classes, facilities and clinical rotations with medical students. While programs are granted flexibility in the types of degrees they award, ranging from a certificate to a master's degree, the majority (88%) of PA programs offer a master's degree. No matter what type of degree is awarded, all PA students must complete an accredited formal education program and pass a national exam to obtain a license.

PA programs are accredited by the independent Accreditation Review Commission on Education for the Physician Assistant (ARC-PA), sponsored by the American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American Academy of Physician Assistants (AAPA), American College of Physicians (ACP), American College of Surgeons (ACS), American Medical Association (AMA), and the Physician Assistant Education Association (PAEA). These organizations collaboratively monitor and assess program compliance. ARC-PA is the sole accrediting agency responsible for accrediting PA programs in the United States. Accreditation standards require competency-based curricula.

The first year of PA education typically consists of a didactic curriculum consisting of coursework in basic medical, behavioral, and social sciences, including anatomy, physiology, pharmacology, physical diagnosis, biochemistry, pathophysiology, microbiology, and medical ethics. PA students complete approximately 400 hours in basic sciences, 175 hours in behavioral sciences, and 580 hours of clinical medicine. The second year of PA training involves clinical training with rotations in outpatient, emergency, inpatient, and long-term care clinical settings. Rotations include family medicine, internal medicine, obstetrics and gynecology, pediatrics, general surgery, emergency medicine, and psychiatry. Prior to graduation, the average PA student completes 2000 hours of supervised clinical practice.¹¹

In addition to the 148 accredited PA programs, there are approximately 41 postgraduate training programs in the United States. The typical program lasts 12 months and offers a certificate of specialty training. The program is based on didactic and clinical curriculum similar to that of physician residency programs.¹²

Certification and Licensure

To practice as a PA, a PA program graduate must pass the Physician Assistant National Certifying Exam, administered by the National Commission on Certification of Physician Assistants (NCCPA), and obtain an individual license from a state medical or PA licensing board. All 50 states, the District of Columbia, and the majority of US territories have enacted laws regulating PA practice. In order for an individual to practice as a PA, he/she must meet the state's licensing criteria and have a supervising physician. All licensing authorities allow physicians to delegate prescriptive authority to the PAs they supervise. To maintain certification, PAs must complete 100 Continuing Medical Education credits every 2 years, and pass a recertification exam every 6 years.

Scope of Practice

Each PA's scope of practice is defined by the individual's education and experience, state law, facility policy and physician delegation. PAs are unique in that they embrace a physician-delegated scope of practice and view the care they provide as complementary to the care provided by physicians. In a physician practice, the PA's scope of practice is mainly determined by the delegatory decisions made by the supervising physician. The physician has the ability to observe the PA's competency and performance and plan for PA utilization based on the PA's abilities, the physician's delegatory style, and the needs of the patients seen in the practice. The physician has ultimate responsibility for the patient and the supervision of the PA.

State laws allow off-site supervision by physicians as long as they are available to the PA via telecommunication. A PA may have multiple supervising physicians, and a physician may supervise more than one PA. Supervising physicians do not need to be on the premises as long as they are available by phone or electronically and within a reasonable distance. In certain rural or inner-city clinics, PAs are the principal care providers, with the supervising physician present only 1 or 2 days each week. In some cases, particularly in very rural or remote areas, the supervising physician is rarely if ever physically present in the PA-run clinic because of the distances between facilities.

In licensed health care facilities, including hospitals, nursing homes, and surgical centers, the facilities have a role in determining the scope of practice of PAs who practice in their institutions. PAs are generally credentialed by the medical staff and authorized through privileges in a manner parallel to that used for physicians.¹³ These privileges must conform to state law.

Federally Employed PAs

Nine percent of PAs – approximately 7,000 – are employed by the federal government. Most federally employed PAs are not licensed but are credentialed by the federal agency that employs them. The criteria for practice are the same as state licensure requirements – graduation from an accredited PA program and passage of the Physician Assistant National Certifying Examination given by the NCCPA, and practice with a physician. Similarly, the PA scope of practice and supervision requirements are established by the employing agency. The Department of Veterans Affairs and the United States Uniformed Services are the main federal employers of PAs.

Reimbursement

Reimbursement from third-party payers is typically paid to the PA's employer. Medicare reimburses for physician services performed by PAs at 85% of the Physician Fee Schedule. If billed under Medicare's "incident to" or shared visit rules, services delivered by PAs are reimbursed at the full physician rate. For Medicaid, all 50 states and the District of Columbia cover medical services provided by PAs under their Medicaid fee-for-service or Medicaid managed care programs at either the same or a slightly lower rate than that paid to physicians. Nearly all private payers cover services provided by PAs at a rate that ranges between 85% and 100% of the physician rate.

PA Roles in Primary Care

Nearly 40% of PAs practice in primary care specialties, 60% of which are employed by physicians in solo or group practices. The remainder of work is in such settings as community health centers, hospitals, HMOs, correctional systems, home health agencies, and long-term care facilities. In the primary care setting, a supervising physician may delegate a PA to perform physical examinations, diagnose and treat illnesses, order and interpret lab tests, prescribe medications, manage patients with chronic conditions, perform minor surgical procedures, provide patient education, make hospital or nursing home rounds, and take call.¹⁴

As primary care physicians need to become more efficient in an increasingly difficult reimbursement environment, PAs are proving to be particularly useful. PAs can help with routine office visits, rounds, and call, allowing the physician to manage more complex cases. When PAs assist with patients with lower acuity, the practice is able to see more patients faster, reducing wait times and increasing patient satisfaction.¹⁵ A 1994 AMA Socioeconomic Monitoring System survey found that solo practice physicians experienced expanded practice, greater efficiency, and greater access to care for their patients when they employed a nonphysician clinician, including PAs, NPs, clinical nurse specialists, and certified nurse-midwives. Physicians who employed nonphysician clinicians were on average able to work one less week per year on average while simultaneously supplying more hours in office visits and patient care and increasing net income by nearly 18%. Of the four non-physician clinician groups in the study, PAs rated highest in terms of patient productivity and patient acceptance.¹⁶ A study of a dozen specialty practices across the United States found that the practices reported being financially stable in large part because of the integration of PAs and NPs. The study also found that in many practices, the increased patient volume was divided. Routine, follow-up patients were seen by the PAs and NPs, and the physician saw the more acute, complex cases that tended to be reimbursed at higher rates.¹⁷ Another study, a 2006 look at a gastroenterology practice, found that billing charges for the NPs and PAs were 2.5 to 4 times their salaries.¹⁸

PA Roles in the Patient-Centered Medical Home

The patient-centered medical home is an emerging physician-guided model of practice based upon providing patients with comprehensive primary care in a team-based environment. Within the PCMH, a physician leads a team that collectively takes responsibility for the ongoing care of patients. Ideally, each member of a clinical team should practice to the highest level of their license, knowledge, skills and abilities.

Since PA training is rooted in providing physician-guided, team-based care, PAs are particularly suited to play a central role in the patient-centered medical home. As key members of the team, PAs can help to ensure continuity, comprehensiveness, and coordination of care, working with physicians and other health care professionals. The roles a particular PA could play within the patient-centered medical home will depend on the clinical setting, patient population, clinical competency and experience, and the professional relationship between the PA and the physician(s).

The roles a particular PA could play within the patient-centered medical home will depend on the clinical setting, patient population, clinical competency and experience, and the professional relationship between the PA and

the physician(s). For example, some PAs maintain their own panel of patients alongside a physician, in others they might focus on acute care and/or follow-up care of chronic conditions and share a panel of patients with a physician. PAs sometimes practice alone, for example, in a rural practice, with a supervising physician located elsewhere.

Challenges for PAs and Internists

Among the challenges that PAs and general internists face is the struggle to find the appropriate balance of autonomy and supervision for the PA in the practice. A physician may be hesitant to hire a PA because he or she may feel that the responsibility of supervising and delegating to a PA is too burdensome. For some physicians, the role of a PA compared with an NP in a practice may be unclear.

General internists may find marketplace demand for PAs a challenge, as PAs are attracted to the higher salaries offered by medical and surgical specialty practice. Use of PAs in hospital settings has also increased in response to restrictions in resident duty hours, as more hospitals integrate PAs into their services to perform tasks previously completed by physician residents.¹⁹

Sometimes general internists who refer a patient to a specialty practice are surprised to find that the consult has been performed by a PA. If the general internist is concerned about the level of the specialist physician's involvement, it is crucial that the two physicians discuss the way referrals are handled and how much physician involvement should occur.

Because physicians and PAs are a team, issues that affect one profession often have a direct affect on the other, such as decreasing reimbursement and increasingly burdensome paperwork and regulations.

Position Statements of the AAPA and ACP

- 1. AAPA and ACP believe that physicians and PAs working together in a team-oriented practice, such as the patient-centered medical home, is a proven model for delivering high quality, cost-effective patient care. National and state legal, regulatory and reimbursement policies should recognize that PAs function as primary care providers in the patient-centered medical home as part of a multi-disciplinary clinical team led by a physician.**

AAPA and ACP support practice models, such as the patient-centered medical home, where there is joint communication and decision-making to meet the health care needs of patients. Such models require a shared commitment to achieving positive patient outcomes, a mutual understanding of each team member's roles, and excellent communication.²⁰ In every practice model, all professionals should ensure that patients are informed of the title and credentials of every person who treats them. This essential part of patient care in any practice takes on even more significance in integrated practices, such as the patient-centered medical home, where team care is the norm.

According to the Institute of Medicine (IOM), enhanced infrastructures are needed to ensure effective and timely communication among clinicians and between patients and clinicians in order to improve the quality of patient care.²¹ Since state laws allow many PAs to practice without the supervision of an on-site physician, health information technology is vital to improving both the quality and coordination of health care services. Through computer networks

and the use of information technology, medical linkages, and long-distance learning and consultation, opportunities can be established that will enable physicians and PAs to communicate readily concerning patient diagnosis and treatment. Ideally, such technology should ensure the availability of clinical information at the point of care for all providers and patients. AAPA and ACP support the use of electronic health records (EHRs) as one critical element of the infrastructure needed to facilitate communication among members of an effective health care team. The availability of such communication systems will enhance opportunities for primary care services to be delivered by integrated teams of providers.

In addition, many physicians and PAs are uncertain about particular aspects of team-based care. AAPA and ACP recognize that these knowledge gaps are opportunities to develop educational resources for our respective members about professional roles, including delegation and supervision and use of information technology to enhance communication. Innovative models of health care delivery, such as the patient-centered medical home, could serve as examples for such educational efforts. AAPA and ACP also advocate for research to develop effective systems of teamwork and co-management of patients among physicians and PAs as clinically indicated.

2. AAPA and ACP encourage training programs from both professions to promote and support opportunities for internists to precept PA students and participate as faculty at PA programs.

Physicians often serve as preceptors for students in PA training programs. As preceptors, they are able to become involved in the teaching process and evaluate the skills and abilities of PAs. This function is beneficial to both the preceptor and the PA, as many preceptors go on to hire PAs for their practice. Additionally, with a predominantly master-degree curriculum, PA training programs are struggling to find an adequate number of PA educators with doctoral degrees. A 2005 faculty pipeline study estimated that there would be only one doctorate-prepared PA faculty available per U.S. program by 2010.²² Internists are particularly well-equipped to serve as faculty and preceptors at PA programs and such opportunities should be promoted.

3. AAPA and ACP encourage interdisciplinary education of physicians-in-training and PA students throughout their educational programs.

To foster interdisciplinary practice, the AAPA and ACP encourage innovative education programs emphasizing the team approach in medical schools, residency programs, and PA education programs. Physicians-in-training and physician assistants-in-training must be adequately prepared to work as part of a health care team in order to provide optimal patient-centered care. Training together will help students and residents better understand the overlapping and complementary skills of the various fields and the importance of interdisciplinary teams. Communication across disciplines is also extremely important and is best learned during training.

National health care workforce policies should ensure health care providers are adequately trained to work within multidisciplinary teams. Efforts should focus on providing multidisciplinary training to both future and practicing clinicians. AAPA and ACP support policies and funding to explore the effectiveness of multidisciplinary training, which could include incorporating joint coursework and clinical experience opportunities into educational curricula for

medical and PA students, employing faculty from both PA schools and schools of medicine to teach PA and medical students, and offering joint continuing education programs for physicians and PAs through both in-person and off-site learning.

4. AAPA and ACP should continue to be represented on the accrediting and certification bodies of the PA profession (ARC-PA and NCCPA).

AAPA and ACP remain committed to their participation on the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA), the independent body authorized to accredit qualified PA educational programs leading to the professional credential, Physician Assistant. Both organizations cooperate with the ARC-PA as collaborating organizations to establish, maintain, and promote appropriate standards of quality for entry-level education of PAs and to provide recognition for educational programs that meet the minimum requirements outlined in these standards.

AAPA and ACP also share a commitment to continue their participation on the National Commission on Certification of Physician Assistants (NCCPA), the only nationally recognized certifying body for PAs in the United States. Certification by NCCPA indicates satisfactory completion of an accredited PA educational program and passage of the national certification examination. The exam is administered by NCCPA to establish a level of competence for entry into the PA profession.

5. AAPA and ACP encourage the creation of an interdisciplinary task force on workforce development. Workforce policies should ensure adequate supplies of primary care physicians and PAs to improve access to quality care and to avert anticipated shortages of primary care clinicians for adults. Workforce policies should recognize that training more PAs does not eliminate the need nor substitute for increasing the numbers of general internists and family physicians trained to provide primary care.

The PA and internal medicine communities are confronted with similar workforce issues of predicted clinician shortage and increased proportion of clinicians practicing in subspecialties. A 2008 study predicted a shortage of 35,000–44,000 adult primary care physicians by 2025. Data suggest that greater use of NPs and PAs is not expected to make enough of an impact on this shortfall.²³ A study by the Association of American Medical Colleges (AAMC) found that even with a projected growth of 2% per year between 2006 and 2025 (an increase of 46%), an additional 150,000 NPs and PAs beyond this level would be required to reduce demand for primary care physicians by 25%.²⁴ Annual numbers of NP graduates fell from 8,200 in 1998 to 6,000 in 2005 and are projected to fall to 4,000 by 2015. In addition, only about 65% of NPs currently work in primary care.²⁵ The number of PA graduates has steadily increased over the years, as average class size and the number of programs has increased. There were 5,500 new graduates in 2009, up from 4,000 in 1999.²⁶

AAPA and ACP are concerned about the level of medical student and PA student interest in careers in primary care. In a study of fourth-year medical students at 11 U.S. medical schools in the spring of 2007, only 2% reported that they were likely to enter careers in general internal medicine.²⁷ Despite the recent uptick in interest seen among new PA graduates, the PA community is

challenged by many of the same issues that face general internal medicine—many students show initial interest in primary care but decide, like medical students, to go into other specialties and subspecialties. Further, as the number of general internal medicine practices dwindles, the opportunities for PAs to work in general internal medicine also are shrinking. Both organizations are committed to reversing this decline and encourage the creation of an interdisciplinary task force on workforce development to examine the nation's health care workforce needs and ensure that there are adequate numbers and types of health professionals to meet the needs of the population. Any workforce policies should recognize the continued and essential need for patients to have access to a personal physician who accepts responsibility for their entire health, working in collaboration with nonphysician clinicians involved in caring for the patient. Consequently, training more PAs does not eliminate the need nor substitute for increasing the number of general internists or family physicians trained to provide primary care.²⁸

6. AAPA and ACP encourage flexibility in federal and state regulation so that each medical practice determines appropriate clinical roles within the medical team, physician-to-PA ratios, and supervision processes, enabling each clinician to work to the fullest extent of his or her license and expertise.

Physicians and PAs enjoy a unique relationship where it has been established that PAs will provide complementary care with the supervision and delegation of a physician. It is important to understand the distinctive roles of all team members and use each team member at the highest level of their license, knowledge, skills, and abilities to ensure high performance in a multidisciplinary team. Flexibility in federal and state regulations enables physicians to delegate appropriate duties to PAs based on their own assessment of each PA's knowledge skills and abilities within their scope of practice. Physician-to-PA ratios and the supervision process should not be standardized. Instead, they should be determined by the needs of the practice and the community.

Conclusion

The future of health care delivery will require multidisciplinary teams of health care professionals working together to provide patient-centered care. Physicians and PAs share a commitment to providing high-quality care, and the complementary care that PAs provide will become increasingly critical to a high-performance health care system. PAs play an essential role in provision of primary care. Many physicians rely upon PAs in their practices to provide direct patient care services within their areas of training, competence, and scope of practice. AAPA and ACP are committed to building on the common ground between PAs and internists in order to ensure an adequate, well-trained primary care physician and PA workforce to meet the complex health care needs of the population.

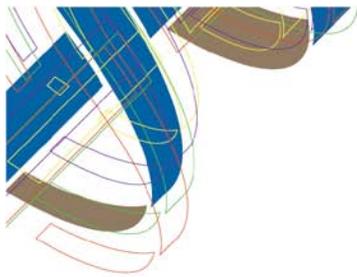
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APPENDIX J: Cost-Effectiveness of Physician Assistants



Cost-Effectiveness of Physician Assistants

Can physician assistants (PAs) provide cost-effective care for patients and the state?

PAs are less expensive to train, employ and insure than physicians. This certainly makes them economical. In addition, any time a patient is seen in the most appropriate setting by the provider whose skills are the best match for the patient's health issues the care is most efficient and economical.

For example, if a patient receives influenza vaccine given by a public health nurse at a clinic that is preferable to the patient being admitted for complications of influenza. Likewise, if a PA treats a patient for a urinary tract infection in an office, that is certainly less expensive for the patient or the system, and less traumatic for the patient than being seen in the emergency department or being admitted for treatment of pyelonephritis.

The PA profession has an ongoing commitment to the physician-PA team concept. This enhances care coordination, which results in more effective, efficient and economical care – and care that is easier to access and comply with for patients. In a 2010 Policy Monograph, the American Academy of Physician Assistants (AAPA) and American College of Physicians (ACP) state, “AAPA and ACP believe that physicians and PAs working together in a team-oriented practice, such as the patient-centered medical home, is a proven model for delivering high-quality, cost-effective patient care.”

Many studies attest to safety, efficacy and cost-effectiveness of care provided by PAs

The addition of regular nursing home visits by a physician assistant supervised by a gerontologist decreased hospital admissions per year by 38% and the total number of hospital days per 1,000 patient years fell by 68.6%.

Ackermann, R.J., & Kemle, K.A. (1998). The effect of a physician assistant on the hospitalization of nursing home residents. *Journal of the American Geriatrics Society*, 46(5), 610 – 614.

Analysis of administrative data found physicians saw a mean of 2.9 patients per hour compared to 2.5 patients per hour for PAs, but PAs worked more hours and saw more patients in a year than physicians. Average charge per patient visits and total charge per episode were similar. Salary for physicians was approximately twice as much per hour as a PA.

Hooker, R. S., (2004). Physician assistants in occupational medicine: How do they compare to occupational physicians? *Occupational Medicine*. 54, 153-158.

A Level I trauma center found that the presence of in-house core trauma surgeons and PAs reduced overall mortality and hospital length of stay. Introduction of PAs to the core trauma team decreased mortality and length of stay.

Mains, C., Scarborough, K., Bar-Or, R., Hawkes, A., Huber, J., Bourg, P., & Bar-Or, D. (2009). Staff Commitment to Trauma Care Improves Mortality and Length of Stay at a Level I Trauma Center. *The Journal of Trauma, Infection and Critical Care*. 66(5), 1315-1320.

Utilization of a trauma surgeon-physician assistant 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.

Miller W, Riehl E, Napier M, Barber K, Dabideen, H. Use of Physician Assistants as Surgery/Trauma House Staff at an American College of Surgeons-Verified Level II Trauma Center. *Journal of Trauma*. Volume 44(2) February 1998 pp 372-376.