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EXECUTIVE SUMMARY

Introduction
There are many people nationwide who lack the healthcare they need and desire. Accordingly, there is growing support for the notion that public health is best served by the broadest access to healthcare possible. There are persistent efforts to promote the use of providers other than physicians to supply the population with this access. These providers are also known as non-physician clinicians (NPCs). They include, but are not limited to, nurse practitioners (NPs), physician assistants (PAs), anesthesiologist assistants (AAs), certified registered nurse anesthetists (CRNAs), optometrists, pharmacists, podiatrists, psychologists, chiropractors, homeopaths, physical therapists, acupuncturists and naturopaths.

These NPCs occupy different niches within the healthcare framework. Midlevel medical professionals such as NPs, PAs, AAs, and CRNAs are meant to work under the supervision of or in collaboration with physicians. Others such as optometrists, pharmacists, podiatrists, physical therapists, and psychologists are non-physician traditional professionals who practice independently within specialty areas. The alternative medicine providers like the acupuncturists, homeopaths, chiropractors, and naturopaths are practitioners who follow and independently practice alternative therapies.

Besides the need for increased availability of healthcare, there is growing support for some of these professions because of the increased popularity of alternative medicine in the United States. This strengthened support, coupled with the need for access to healthcare, has led to growth in both the number of NPCs and in their practice parameters. NPCs have already made significant strides in the recent past in expanding areas such as scopes of practice and reimbursement, and will continue to petition the states for more privileges in the future.

Scope of Practice
For each profession, the scope of practice is dependent upon state law and therefore varies from state to state. Generally speaking, NPCs have substantially increased their scopes of practice in the last decade. Today, NPCs are doing everything from prescribing medications to performing surgery.

The mid-level medical professionals have significantly expanded their scopes of practice in the last decade. NPs are currently allowed to practice independently in 22 states. Of the 22, some states require physician supervision, while others require collaboration, and still other states require no form of physician oversight whatsoever. Besides this autonomy of practice, NPs are allowed to prescribe drugs to some extent in every state, whether they are acting in collaboration with a physician or independently prescribing.

PAs have also seen an expansion in their scope of practice. PAs practice under the supervision of a physician who is either directly present or immediately available.

Under this PA-supervising physician team, PAs are granted much autonomy and are allowed to prescribe drugs in 48 states, when delegated by a physician to do so. Nearly 90% of these states allow PAs to prescribe controlled medications.
AAs work under the direct supervision of an anesthesiologist to develop and implement anesthesia care plans. However, to date only nine states have statutes or regulations that specifically address AAs. In one of these states (Georgia) AAs are licensed under the PA practice act and are considered a category of PAs. Some other states that do not explicitly license AAs or specifically qualify them as PAs may include AA practice in the laws governing PAs. Alternatively, in other states, AAs are unregulated and practice under an anesthesiologist’s delegated authority. AA scope of practice varies from state to state, but currently AAs work in 16 states.

CRNAs have also seen their scope of practice expanded. Among other tasks, today CRNAs are generally allowed to administer most types of anesthesia, including general, regional, selected local and conscious sedation. In 2001, a new federal CRNA rule was implemented. Under the rule, the current federal physician supervision requirement is maintained, unless the governor of a state exercises the option of exemption from this requirement. The governor must certify that specific criteria have been met before the “opt-out” can be approved. Since the adoption of the final rule, thirteen states have opted-out.

The non-physician traditional professions have also experienced a growth in their respective scopes of practice. Optometrists practice autonomously within their scope of practice and possess various prescriptive privileges specific to eye ailments in all 50 states. One state even permits optometrists to perform some forms of laser eye surgery.

Podiatrists are licensed in all 50 states to treat the foot and its related structures by medical or surgical means. Some states even allow them to treat the hand. Podiatrists usually work independent of physicians and they possess independent prescriptive privileges in all of the 50 states.

Pharmacists dispense medications prescribed by authorized providers. Collaborative practice agreements between pharmacists and physicians expand the pharmacist’s authority to initiate and modify prescriptions. Currently, more than 40 states have laws allowing these collaborative practice agreements. However, states vary on the amount of prescriptive authority granted to pharmacists within these agreements.

Psychologists can practice independently or under the supervision of other professionals. Psychologists currently possess some prescriptive authority in New Mexico, but no other states. However, some states are moving close to securing prescriptive privileges for psychologists.

The alternative professions are experiencing the least growth among all of the NPCs in their scopes of practice. This is probably due to apprehensiveness towards their therapies as well as intrinsic problems with establishing licensing mechanisms. However, they are advocating strongly for more expansive practice rights. Chiropractors practice independently within their scopes of practice from physicians and are not allowed to prescribe in any of the 50 states. Naturopaths are currently licensed in only 14 states, have little to no relationship with physicians, and have few prescriptive privileges. Homeopaths are only licensed in 3 states. However, most homeopaths in the U.S. hold another medical degree, such as an M.D. or a D.O., which allows them to diagnose and prescribe medications.
Reimbursement
Many NPCs are considered low cost alternatives to physicians. Therefore, insurance companies are often beginning to view some NPCs as cost-effective providers of primary care and reimbursing them at rates equal to that of physicians. However, a number of NPCs are not reimbursed by insurance companies for their services, or they are reimbursed by only a few insurance companies. Therefore, reimbursement is one of the main goals on the professional agendas of many of the NPCs.

Conclusion
As mentioned above, the soaring cost of healthcare has led to the increased need for a low cost means to access the healthcare system. NPCs have benefited from this public demand and often times found themselves the focus of discussions on how to address this concern. Many NPCs are considered primary care providers and low cost alternatives to physicians.

As primary care providers, many of the NPCs perform functions and duties similar to that of physicians. For example, some diagnose conditions, some prescribe medications, some perform surgery, some practice independently, and most get reimbursed by insurance companies at rates similar to that of physicians. Not surprisingly, because of this great overlap of job functions, many NPCs are referring to themselves as “physicians.” For example, in some states podiatrists are known as podiatric physicians, chiropractors are known as chiropractic physicians, homeopaths are known as a homeopathic physicians, and in four states an optometrist is known as an optometric physician. Therefore, as the various niches within the healthcare framework start to blend, the professional titles are being used interchangeably.

Regardless of the nomenclature used, NPCs are considered a major part of today’s healthcare industry. As they continue to lobby state legislatures for increases in practice rights, prescriptive privileges, and reimbursement, a number of concerns arise. These concerns include, first and foremost, questions related to protecting patient safety, such as what is considered adequate education and training for practice. Further, as more NPCs look to act independent of physicians, questions of professional autonomy resonate throughout the healthcare arena. These and other concerns are important in any evaluation of the growth of these professions.
ANESTHESIOLOGIST ASSISTANTS

Introduction
Anesthesiologist Assistants (AAs), to be distinguished from PAs, are allied health professionals who work under the direct supervision of a licensed anesthesiologist to develop and implement anesthesia care plans. According to the American Academy of Anesthesiologist Assistants (AAAA), AAs perform a wide variety of functions under an anesthesiologist's direction. These functions include the following: eliciting a pre-anesthesia health history and performing a physical exam; establishing patient monitoring devices and intravenous access; assisting in the application and interpretation of advanced monitoring techniques; assisting in the induction, maintenance and emergence of a patient's anesthetic; securing the patient's airway through mask, endotracheal tube or laryngeal mask airway; interpreting and recording the patient's physiological and pharmacological status; and providing continuity of care into and during the post-operative period. Additional functions may be delegated depending on an individual's qualifications and skills. These functions include performing and maintaining regional anesthesia, clinical teaching, or responding to life-threatening situations with the cardiopulmonary resuscitation team.

The AA profession has its roots in the 1960's when there were qualitative and quantitative changes in the scope of anesthesia practice. These changes include increased complexity of anesthesia care, advances in monitoring technology, demands for higher quality anesthesia care, and the evolution of the anesthesia care team. These factors coupled with personnel shortages due to the retirement of physicians and nurses who entered the field immediately after World War II led to the eventual birth of the AA profession.

Education
There are currently two recognized AA programs in the United States that are accredited by the Commission for the Accreditation of Allied Health Education Programs (CAAHEP). These programs are Emory University's Master of Medical Science Degree in Anesthesiology and Patient Monitoring Systems and Case Western Reserve University's Master of Science in Anesthesiology. Prerequisites for these programs entail a baccalaureate degree and an educational background in the sciences that would qualify the students to pursue a career in the medical sciences. Both programs are approximately two years in duration and involve both didactic and clinical training. The classroom training is designed to enhance basic science knowledge with special emphasis on the cardiovascular, respiratory, renal, central nervous and neuromuscular systems. The clinical portion is designed to educate students extensively in patient monitoring and anesthesia delivery systems.

After successfully completing the two-year program, AAs may become nationally certified by taking an examination administered by the National Commission for the Certification of Anesthesiologist Assistants (NCCAA) and the National Board of Medical Examiners. Those AAs who have passed

4 Id.
the examination are designated as Anesthesiologist Assistants-Certified (AA-C). To maintain certification AAs are required to engage in continuing medical education. For example, in Alabama, certified AAs must complete 12 hours of Category 1 CME a year.\(^5\)

**Licensure**

To date, AAs work in 16 states.\(^6\) Currently, Alabama, Florida, Georgia, Kentucky, Missouri, New Mexico, Ohio, South Carolina, and Vermont specifically have license, regulation, or certification requirements for AAs. In the following states, AAs are granted practice privilege through physician delegation (physician can specifically request an AA for the particular procedure): Colorado, District of Columbia, Michigan, New Hampshire, Texas, West Virginia, and Wisconsin.

To be licensed in South Carolina an AA must be a graduate of an accredited AA program and be currently certified by the NCCAA. New Mexico’s education and certification requirements for licensure are similar to the requirements in South Carolina. However, New Mexico is unique in that it grants licenses to only those individuals who are employed by a university in New Mexico with a medical school. Both Alabama and Ohio require an AA to be certified by the NCCAA and are regulated by their state medical boards. Additionally, both require continuing education for recertification purposes each year.\(^7\)

Georgia’s law, which was promulgated by the Composite State Board of Medical Examiners, differs from Alabama and Ohio. Georgia’s AAs are licensed under the PA practice act. Unlike Alabama and Ohio, Georgia’s AAs are considered a category of PAs.\(^8\) Similar to Alabama and Ohio, however, to obtain licensure in Georgia the individual must have graduated from an AA school, passed the national licensure examination, and must undergo re-certification similar to a PA.

The states that do not explicitly license AAs or specifically qualify them as PAs may include AA practice in the laws governing PAs. AAs are granted practice privilege through physician delegation, meaning the physician can specifically request an AA for the particular procedure, in Colorado, the District of Columbia, Michigan, New Hampshire, Texas, West Virginia, and Wisconsin.\(^9\) In these states, physicians can delegate tasks to those they deem responsible under the auspices of the hospital where they are employed.\(^10\)

**Distinction From PAs**
The American Academy of Physician Assistants (AAPA) strongly emphasizes that there is a distinction between the AA and the PA professions. The AAPA states that despite the parallels between the two professions, AAs are not PAs and each profession has its own separate educational curriculum, standards for CAAHEP accreditation, and national certification agency. While it would

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\(^5\) AL ADC 540-X-7-.33 through .60


\(^7\) See OAC 4731-24-01 through .04; AL ADC 540-X-7-.57: Continuing Medical Education - Anesthesiologist Assistant (A.A.)

\(^8\) http://www.medicalboard.georgia.gov.

\(^9\) *supra*, note 7.

\(^10\) *Id.*
seem that the AAPA would not support Georgia’s decision to license its AAs as PAs, it does not appear that they have taken any action. Some states, like Mississippi, have expressly excluded AAs from being licensed as PAs. The AAPA states that a PA who specializes in anesthesiology, but has not completed an AA program and passed the NCCAA exam, is not considered an AA. Regardless of state law nomenclature, therefore, it seems that the training programs and examination distinguish an AA from a PA.

**Relationship with Physicians**

As mentioned above, AAs work under the direct supervision of an anesthesiologist. Of some importance is the number of AAs an anesthesiologist may supervise. The Centers for Medicaid and Medicare Services (CMS) recognize AAs as mid-level anesthesia providers. Under CMS rules, an anesthesiologist may supervise up to four AAs; however, state regulations may further limit this number.

**Liability**

While each states’ policies regarding AA discipline vary to some degree, the majority of anesthesiologist assistants have no legal standing in the state. In general, states that license AAs have procedures in place to discipline a licensed AA. Therefore, even when the Board has no formal mechanism to monitor AA practice, reports may still be investigated. However, the supervising physicians remain ultimately and completely liable for all acts of the AA.

**Legislation**

In 2004, Florida enacted a law clarifying the regulation of the practice of AAs. HB 626 requires AAs to have passed the NCCAA and either be licensed by the NCCAA or complete 40 hours of continuing medical education every two years. The law also provides for supervising standards. In 2005, derivatives of the term “anesthesiologist assistant” were found in the synopses of 24 different drafts of legislation text that moved through the state legislatures.

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11 MS ST § 73-26-1
12 supra, note 2.
14 AL ADC 540-X-7-.41: Discipline Of License - Anesthesiologist Assistant (A.A.)
15 Netscan 2005 state legislation search.
CERTIFIED REGISTERED NURSE ANESTHETISTS

Introduction
Certified Registered Nurse Anesthetists (CRNAs) are registered nurses licensed to practice nursing who have specialized in anesthesia care by taking graduate level coursework. CRNAs are legally responsible for the anesthesia care they provide.1

Nurse anesthetists are generally allowed to administer most types of anesthesia, including general, regional, selected local and conscious sedation. According to the American Association of Nurse Anesthetists, which represents more than 28,000 CRNAs, they are also taught to manage fluid and blood replacement therapy, and to interpret data from monitoring devices.2 Other clinical responsibilities may include the insertion of invasive catheters, the recognition and correction of complications that occur during the course of an anesthetic, the provision of airway and ventilatory support during resuscitation, and pain management.3

Education
All nurse anesthesia programs in the United States are accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA), which is recognized by the U.S. Secretary of Education and the Commission on Higher Education Accreditation as the sole accrediting authority for nurse anesthesia programs.4

Nurse anesthesia education has evolved since the first organized course in anesthesia for graduate nurses in 1909. There are more than 80 nurse anesthesia programs in the United States affiliated with, or operated by, universities, and offer a minimum of a master’s degree upon completion. Approximately one-half of the programs are within schools of nursing, with the remainder housed within schools of health science and other appropriate graduate schools.5 Most nurse anesthesia programs range from 45 to 75 graduate semester credits in courses pertinent to the practice of anesthesia and last between 24 and 36 months in length.6 The science curriculum of graduate nurse anesthesia programs includes a minimum of 30 semester credit hours of courses in anatomy, physiology, pathophysiology, pharmacology, chemistry, biochemistry, and physics.7

CRNAs must meet more stringent standards now than in the past if they are to become licensed, but the newer standards remain significantly lower than that of a physician anesthesiologist. The registered nurse’s education as a nurse anesthetist requires a Bachelor of Science in Nursing (or other appropriate baccalaureate degree); one year of experience in critical care nursing; and completion of two to three years of Master’s level graduate work, including both classroom and clinical studies, on the administration of anesthesia.8 The physician anesthesiologist's course of

2 Id.
3 Id.
5 Id.
6 Id.
7 Id.
study is much more vigorous and requires a baccalaureate degree, completion of medical school, and a four-year residency in anesthesiology. However, now Alabama, Arkansas, Connecticut, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oregon, South Carolina, Tennessee, Texas, Virginia, Washington, Wisconsin and Wyoming all require the CNRAs in their state to have a masters degree.

**Licensure**

Upon completion of a COA-accredited program, a graduate is eligible to take the national certification examination that is developed and administered by the Council on Certification of Nurse Anesthetists (CCNA). Each graduate of an accredited nurse anesthesia program must successfully pass this examination to earn the title of Certified Registered Nurse Anesthetist. CRNAs are recertified by the Council on Recertification of Nurse Anesthetists. This group ensures that CRNAs maintain their skills and keep current. The recertification period for CRNAs is two years, and must be maintained for an individual to practice as a CRNA in the United States and to stay in compliance with state nursing regulations.

**Relationship with Physician**

Many states have enacted hospital codes defining how anesthesia is to be delivered, including the requirement for physician supervision. Each state can choose to allow—or disallow—services by CRNAs without physician oversight. The American Association of Nurse Anesthetists (AANA) defines the scope of practice of a CRNA, even with physician supervision, as including:

- Requesting consultations and diagnostic studies; selecting, obtaining, ordering, and administering pre-anesthetic medications and fluids; and obtaining informed consent for anesthesia.
- Developing and implementing an anesthetic plan.
- Initiating the anesthetic technique which may include: general, regional, local, and sedation.
- Selecting, applying, and inserting appropriate non-invasive and invasive monitoring modalities for continuous evaluation of the patient's physical status.
- Selecting, obtaining, and administering the anesthetics, adjuvant and accessory drugs, and fluids necessary to manage the anesthetic.
- Managing a patient's airway and pulmonary status using current practice modalities.
- Facilitating emergence and recovery from anesthesia by selecting, obtaining, ordering and administering medications, fluids, and ventilatory support.
- Discharging the patient from a post-anesthesia care area and providing post-anesthesia follow-up evaluation and care.

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12 Id.  
13 Id.  
• Implementing acute and chronic pain management modalities.
• Responding to emergency situations by providing air-way management, administration of emergency fluids and drugs, and using basic or advanced cardiac life support techniques.\textsuperscript{15}

**Legislative Agenda**

In 2001, a federal rule allowed CRNAs to practice anesthesiology without the supervision of a physician. The rule, *Medicare and Medicaid Programs: Hospital Conditions of Participation-Anesthesia Services*, was originally published January 18, 2001 by the Clinton Administration, and finalized in November 2001. It does not eliminate the federal requirement for physician supervision across the board for all patients who receive anesthesia in Medicare participating hospitals, critical access hospitals, and ambulatory surgical centers. Governors must “opt-out” of the supervision requirement for their states.\textsuperscript{16} Second, the rule calls for a prospective study or monitoring program to assess outcomes-of-care issues relating to anesthesia nurses’ practice and involvement.\textsuperscript{17}

State governors can opt-out of the supervision requirement if the following conditions are met: 1) consult with the state’s Board of Medicine and Board of Nursing on issues of anesthesia-care access and quality, 2) demonstrate that the change is consistent with state law, and 3) show that the requested exemption is in the best interest of the citizens of that state. Since the adoption of the final rule, 13 states have opted-out.\textsuperscript{18}

On the state level, in 2005 derivatives of the term “certified registered nurse anesthetist” were found in the synopses of 209 different drafts of legislation text that moved through the state legislatures.\textsuperscript{19}

**Court Cases**

On June 29, 2005, the New Jersey Supreme Court determined that the state Board of Medical Examiners can implement rules to require that the administration of anesthesia in physician’s offices be performed only by a physician credentialed in anesthesia or by a CRNA under the supervision of such a physician.\textsuperscript{20} Regulations promulgated by the Board, regarding standards for administration of anesthesia in physicians’ offices during non-minor surgeries, were determined not arbitrary because testimony adduced at public hearings supported need for enhanced education and oversight.\textsuperscript{21} It was fundamentally reasonable that additional education and training would enable anesthesiologists administering or overseeing anesthesia better to protect patients and to respond when complications occurred. The New Jersey Association for Nurse Anesthetists stated their view that this was a narrow decision and that other states are unlikely to follow, since in 2005, 32 states do not have physician supervision requirements for CRNAs in their state laws.\textsuperscript{22}

\textsuperscript{15} supra, note 1.
\textsuperscript{16} 42 C.F.R. § 482.52
\textsuperscript{17} Id.
  --Alaska, Iowa, Idaho, Kansas, Minnesota, Montana, New Hampshire, New Mexico, Nebraska, North Dakota, Oregon, South Dakota, and Washington
\textsuperscript{19} Netscan 2005 state legislation search.
\textsuperscript{20} NJ Assoc. of Nurse Anesthetists v. NJ State Bd. Of Medical Examiners, 875 A.2d 247 (N.J. 2005)
\textsuperscript{21} Id.
\textsuperscript{22}Carolyn Toree, *NJ Supreme Court Affirms Physician’s Right to Supervise CRNA’s Administration of Anesthesia in Office Settings*, New Jersey Nurse, vol. 35 no.4 (July 1, 2005).
NURSE PRACTITIONERS

Introduction
The title of “nurse practitioner” is used to refer to nurses who have received additional education beyond their RN or BSN degrees. The American College of Nurse Practitioners (ACNP) specifically defines a nurse practitioner (NP) as “a registered nurse with advanced academic and clinical experience, which enables him or her to diagnose and manage most common and many chronic illnesses, either independently or as part of a health care team”.

Services provided by NPs include but are not limited to ordering, conducting, and interpreting appropriate diagnostic and laboratory tests, prescription of pharmacological agents and treatments, and therapies. Teaching and counseling individuals, families, and groups are also a major part of NP’s activities. Some states allow nurse practitioners to work without physician collaboration or write prescriptions independently, and some do not.

Henry K. Silver and Loretta C. Ford developed the first NP program as a master’s degree curriculum at the University of Colorado in 1965. During the late 1960s and early 1970s, a projected physician shortage stimulated an increased interest and funding of sources for NP programs.

According to the National Sample Survey of Registered Nurses in March 2000, there were an estimated 102,829 nurse practitioners; 14,643 of these NPs also were prepared as clinical nurse specialists. It is also estimated that 30,000 nurse practitioners provide primary care in the United States. The average salary for a nurse practitioner in 2004 was $73,235.

Education
NPs have traditionally been educated through programs that grant either a certificate or a master’s degree. Certificate programs for NPs began in the 1960s. These programs are completed in about 1 year of study followed by an internship that is similar to the clinical training of those NPs who receive master’s degrees. Nurse practitioners who complete a certificate program are not awarded an academic degree. About 50% of NPs practicing today completed a nurse practitioner certificate program. While the amount of certificate programs have diminished, in part because the NP organizations are attempting to unify the curriculum, some programs are still around today. In more recent years the federal government began to deny funds to certificate programs and increase funds available to the graduate programs.

2 Ellie Lopez-Bowlan, Advanced Practitioners of Nursing Continue to Evolve and Promote their Profession, Nevada Rnformation, Aug. 1, 2005.
5 American College of Nurse Practitioners, NP Salary Summary (updated Aug. 10, 2005) http://www.nurse.net/cgi-bin/start.cgi/salary/index.html#all.
7 Phone interview with the American Academy of Nurse Practitioners (March 9, 2000).
Most NPs graduating today come from masters programs. An intensive preceptorship under the direct supervision of a physician or an experienced nurse practitioner, as well as instruction in nursing theory, are key components to most NP programs. The exact curricula required for the masters program is unclear and varies from school to school. However, the National Task Force on Quality Nurse Practitioner Education released a report with guidelines for the framework for evaluating NP educational programs.\(^8\) Most masters programs are geared towards a specific specialty (family, adult, pediatric), so the curriculums remain different.

Until recently, RN or BSN degrees were necessary prerequisites to qualify as an NP. However, some new programs offer a three-year program leading to a Masters of Science degree. This program allows people with a bachelor's degree in a non-nursing field to become advanced practice nurses such as NPs.\(^9\)

**Licensure**

NPs are regulated by the states. The type of training and certification required is dictated by state licensure laws, and therefore varies from state to state. The board of nursing is the authorized state entity with the legal authority to regulate nursing. Legislatures enact the Nurse Practice Act for a state, and such an act typically: defines the authority of the board of nursing, defines nursing and the boundaries of the scope of practice, identifies types of licenses and titles and states the requirements for licensure, and identifies the grounds for disciplinary action.\(^10\) For example, Connecticut requires certification by a national certifying body, 30 hours of education in pharmacology, and a masters degree in nursing if first certified after 1994 to be licensed as an advanced practice nurse.\(^11\) Florida requires a current license, adherence to state board rules, and completion of a formal post education program or a master’s degree in a nursing clinical specialty to be certified as an advanced practice nurse.\(^12\)

**Relationship with Physician**

Nurse practitioners’ relationships with physicians vary from state to state. NPs in 22 states are allowed to practice independently.\(^13\) Of the 22, some states require “supervision” of NPs; other states require “collaboration”; and still others require no collaboration at all. NPs generally work “in collaboration” with a physician. Unfortunately, this term varies greatly in its scope from state to state and is open to interpretation. Of issue is whether or not the state requires a written collaborative practice agreement or protocol for “collaboration” to occur and how this collaboration affects prescriptive rights. The National Council of State Boards of Nursing reports that most states allow NPs to establish independent practices but only under a protocol, collaboration, or referral

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\(^9\) University of California San Francisco School of Nursing, *Masters Entry Program in Nursing* (last visited Sept. 22, 2005) [http://nurseweb.ucsf.edu/www/ps-ad.htm].


\(^12\) FL ST Sec. 464.012. *Florida Nurse Practice Act: Certification of Advanced Registered Nurse Practitioners*.

plan with a physician. In general, however, “collaboration” as a concept is considered by most NPs to be less restrictive than “supervision” and therefore is more preferable.

A new trend, retail clinics, may provide nurse practitioners with independent practice. Maryland, Minnesota, Tennessee, Texas and other states recently opened such clinics, which are designed to offer quick and more cost-effective health care for common illnesses. These clinics offer lower-priced health services from vision screening to diagnosing strep throat and are located in retail stores. The clinics are walk-in and employ nurse practitioners to perform medical testing and examinations. The American Medical Association and American Hospital Association have expressed concern that there is not enough physician supervision employed in such clinics, endangering patient safety.

**Prescriptive Authority**

A 2004 survey found that 14% of advanced nurses were prescribing in their day-to-day practice. All of the states allow NPs to prescribe drugs to some extent, but this varies from state to state. The states differ on the schedule and amount an NP is allowed to prescribe. Of issue is whether the NP is independently prescribing or is prescribing in collaboration with a physician. Only 5 states Alaska, Montana, New Hampshire, New Mexico, Vermont, give NPs complete prescriptive authority, including that of controlled substances. In addition, five more states, including Iowa, Maine, Oregon, Utah, and Washington, allow independent prescribing of medications, including controlled substances, by nurse practitioners with some limitations. All of the other states give NPs collaborative authority to prescribe.

**Reimbursement**

The American Academy of Nurse Practitioners states that multiple studies demonstrate the cost effectiveness and acceptance of NPs as primary healthcare providers. The United States Balanced Budget Act of 1997 authorized reimbursement for NPs in all sites of service, and the payment rates for NPs is set at the lesser of 85% of the physician rate or 80% of the actual charge. However, NPs are only eligible for reimbursement for Medicare Part B services, if the services provided would be reimbursable if provided by a physician and are within their scope of practice. As for Medicaid, federal law mandates reimbursement for family and pediatric NPs. 41 states currently recognize mid-level practitioners as providers. Private insurers (HMOs) are also recognizing NPs as primary

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16 Id.
17 Id.
care providers and reimbursing them at rates equal to that of physicians. A 2003 study found that 38% of advanced practice registered nurses were credentialed by HMOs, and 29% reported that other private insurers have credentialed them.23

**Legislative Agenda**

In 2005, the term “nurse practitioner” was found in 1,753 different drafts of legislation text that moved through state legislatures.24 One goal of the profession is to be recognized nationally as primary care providers and therefore be fully reimbursed by all types of insurance companies (Medicare, Medicaid, and private insurers). Another goal is to increase the prescriptive power of NPs nationally. In 2005, the Washington legislature enacted a law to give advanced practice nurse practitioners independent prescriptive authority for Schedule II-IV controlled substances. Washington has historically had some of the most expansive regulations regarding the scope of practice of nurse practitioners.25 Nurse practitioners’ contribution to the total volume of primary care is substantial there; in fact, a study in Washington showed that 10.3% of all outpatient rural generalist care is provided by nurse practitioners.26

Another goal is to be able to practice independently of physicians throughout the United States. Nurse practitioners scope of practice is expanding to allow nurse practitioners to sign certificates of health for school personnel and to dispense medications in South Dakota, and to prescribe physical therapy services in Wyoming. In California, a law enacted in 2003 clarified the authority of appropriately licensed healthcare personnel to provide medication abortion; it applies to nurse practitioners, nurse-midwives, and physician assistants.27 Florida enacted a law in May 2005 to allow nurse practitioners to conduct physical examinations of certain permit applicants to bear firearms and examinations of any person applying to be a firefighter.28

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24 Netscan 2005 State Legislation search.
28 HB 307, to amend FL ST 493.6108 and FL ST 633.34.
PHYSICIAN ASSISTANTS

Introduction
A Physician Assistant (PA) is a licensed health professional who practices medicine with the supervision of a physician. In general, PAs can provide 80% of the services typically provided by a family physician. They perform physical exams, diagnose illnesses, develop and carry out treatment plans, order and interpret lab tests, suture wounds, and assist in surgery.

The PA profession began in the mid-1960s when physicians and educators recognized that there was a shortage and an uneven distribution of primary care physicians. To expand the delivery of quality medical care, Dr. Eugene Stead of the Duke University Medical Center in North Carolina put together the first class of PAs in 1965. He selected Navy corpsmen who received considerable medical training during their military service and during the Vietnam War, but who had no comparable civilian employment. He based the curriculum of the PA program in part on his knowledge of the fast-track training of doctors during World War II.

In the nearly 40 years since the first PAs began practicing, the profession has shown remarkable growth. In 2005, there were over 55,000 clinically practicing PAs in the United States, an increase of over 20,000 since 1998. They are located in every medical and surgical specialty.

Education
PAs are educated in accredited programs located at schools of medicine or allied health, universities, and teaching hospitals. Prerequisites for admission generally include two years of relevant college course work, plus patient care experience. PA education is usually 108 weeks (as compared with 153 weeks of medical school).

The first phase of the program consists of intensive classroom and laboratory study, providing students with an in-depth understanding of the medical sciences. Subjects include anatomy, pharmacology, physiology, clinical laboratory medicine and microbiology, pathophysiology, physical diagnosis, medical ethics, and behavioral sciences. The second phase consists of clinical rotations with physician preceptors. Programs include approximately 2000 hours of clinical rotations in various practice fields.

According to the AMA, most PA students graduated with a bachelor’s degree. Now, programs offer a certificate upon graduation, and a growing number of programs award master’s degrees upon completion. The National Commission on Certification of PAs in conjunction with the National Board of Medical Examiners administers a national certifying examination to graduates of accredited PA programs. Only those individuals who pass the exam may use the title of “PA-certified” (PA-

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1 Physician Assistant History Center (last modified 2004) http://www.pahx.org.
2 Id.
C). To maintain their national certification, PAs must log 100 hours of continuing medical education every 2 years and attain recertification every six years.⁶

**Licensure**

State laws that regulate PA practice currently use three terms for the credential awarded by the state: licensure, certification, and registration. The American Academy of Physician Assistants (AAPA) advocates for the use of the term “licensure” for PAs because the rigorous method of regulation that licensure entails is already in place for PAs. The AAPA believes that use of the other terms to describe PA credentialing only confuse consumers, provider organizations, businesses, and the professions. According to the AAPA licensure creates credential parity.⁷

Regardless of the use of different terms to describe licensure, state laws govern the requirements for holding a license in the state. Each state has its own requirements but licensure usually mandates graduation from an accredited PA program and successful completion of a national certification examination. Practice requirements and the laws governing definitions, scope of practice, prescriptive authority, and requirements for physician collaboration are stated in the statutes and regulations of each state. Every state has a PA practice law requiring the State Board of Medical Licensure to license and regulate the practice of PAs.

**Relationship with Physicians**

The AAPA supports the team relationship between PAs and physicians, the hallmarks of which are frequent consultation, referral, and review of PA practice by the supervising physician, and notes is one of the strengths of the PA profession.⁸ The PA profession remains committed to the concept of the supervising physician-PA team. This is reflected in the AAPA’s Model State Legislation for Physician Assistants: “Physician assistants (PAs) should be licensed to practice medicine with physician supervision and [the] PA scope of practice should be determined by supervising physicians.”⁹

Also, the AAPA’s policy states that the physician-PA team relationship is fundamental to the PA profession and enhances high-quality health care. The policy also emphasizes strengthening and preserving this relationship as the health care system changes.

However, the definition of “supervision” varies from state to state. Some states require the physician to be directly present. Others require the supervising physician to be either in the same facility or to be able to be reached by telephone. For example, Florida requires physician presence or easy availability of the physician, and Connecticut requires the supervising physician to be continuously available through direct communication.¹⁰ The trend is for states to not require physical presence by physician, but the easy availability of communication between the PA and the supervising physician.

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¹⁰ American Academy of Physician Assistants, Summary of State Regulation of Physician Assistant Practice (last modified Aug. 2005).
One issue in this area is what the ratio of PAs to Supervising Physicians should be. Some states require the ratio to be 2:1, while others permit an even larger ratio. The AAPA recommends state laws contain no reference to specific ratios of PAs to physicians. The AAPA believes the 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 physician assistant, and the supervisory style of the supervising physician.11 Contrary to the AAPA's position, however, most states do have language in their PA Practice Acts that specifically state the maximum number of PAs a physician is allowed to supervise.12

**Prescriptive Authority**

PA ability to prescribe medication is dependent upon state law. Only two states (Indiana and Ohio) do not allow PAs prescriptive authority.13 All of the other 48 states have enacted laws or regulations that allow supervising physicians to delegate prescriptive authority to PAs. Nearly 90% of these states allow PAs to prescribe controlled medications.14 The AAPA believes that authorizing supervising physicians to delegate authority to prescribe controlled medications to PAs allows for more effective practice by the supervising physician/PA team.15

**Reimbursement**

According to the AAPA numerous independent studies have concluded that the quality of medical care provided by PAs is equivalent to that of physicians.16 One thing to keep in mind is that PAs do not seek independent reimbursement. The policy of the AAPA is that reimbursement for services provided by PAs should be made to the practice. This policy further enhances the PA team theory to healthcare.17 Therefore, the AAPA advocates for reimbursement of PAs as primary care providers.

Medicare recognizes PAs as primary care providers and pays for medical services provided by the PAs in all settings at 85% of the physician fee schedule, which is 13.6% of the surgeon's Medicare reimbursement.18 Assignment is mandatory and state law determines supervision and scope of practice, while the rate of reimbursement is either the same or slightly lower than that of physicians. All 50 states cover medical services provided by PAs under their Medicaid programs.

On October 25, 2002, CMS issued new rules giving PAs and their physicians increased latitude in hospital and office billing for E/M services. The new requirement, Transmittal 1776 of the Medicare Carriers Manual, allows PAs and physicians who work for the same employer to share

11 Id.
12 AOA PA Prescriptive Authority Chart
14 Id.
visits made to patients the same day with the combined work of both billed under the physician at 100% of the fee schedule.\(^{19}\) So, if the PA provides the majority of the service for the patient and the physician provides any face-to-face portion of the E/M encounter, the entire service may be billed under the physician.\(^{20}\) This rule does not extend to procedures and the practitioner who does the majority of the procedure is the one under whom the procedure is billed. If the physician does not provide any face-to-face portion of the E/M encounter, then the service is appropriately billed at the full fee schedule amount under the PA with reimbursement paid at the 85% rate.\(^{21}\)

**Legislative Agenda**

In 2005, the term “physician assistant” was found in 1,908 different drafts of legislation text that moved through the state legislatures.\(^{22}\) As mentioned above the main goal for the profession is licensure. Specifically, the term “licensure” is needed to describe credentialed PAs.

Another goal of PAs is to be able to practice independently of physicians throughout the United States. For example, Florida enacted a law in May 2005 to allow physician assistants to conduct physical examinations of certain permit applicants to bear firearms and examinations of any person applying to be a firefighter.\(^{23}\)

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\(^{19}\) American Academy of Physician Assistants, Third Party Reimbursement for Physician Assistants (last modified April, 2004) [http://www.aapa.org/gandp/3rdparty.html](http://www.aapa.org/gandp/3rdparty.html)

\(^{20}\) *Id.*

\(^{21}\) *Id.*

\(^{22}\) Netscan, 2005 state legislation search.

\(^{23}\) HB 307, to amend FL ST 493.6108 and FL ST 633.34.
OPTOMETRISTS

Introduction
Optometrists are independent primary health care providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions. Optometrists are also known as O.D.’s or doctors of optometry and in four states (Arkansas, Florida, Oklahoma, and Oregon) as an optometric physician. They provide most of the primary vision care people need. Optometrists examine people's eyes to diagnose and treat disorders and diseases of the eye and visual system. They use instruments and observation to examine eye health and to test patients' visual acuity, depth and color perception, and their ability to focus and coordinate the eyes. They analyze test results and develop a treatment plan. Also, optometrists often provide pre- and post-operative care to cataract and other eye surgery patients.

Optometrists are sometimes confused with ophthalmologists because both examine eyes, prescribe eyeglasses and contact lenses and perform surgical procedures. But ophthalmologists are physicians; optometrists are not. Optometrists are limited as to what surgical procedures they can perform; ophthalmologists are not.

Optometrists held about 34,000 jobs in 2004. “The number of jobs is greater than the number of practicing optometrists because some optometrists hold two or more jobs.” For example, an optometrist may have a private practice, but also work in another practice, clinic, or vision care center. Employment of optometrists is expected to grow faster than average (increase by 18 to 26 percent) for all occupations through the year 2014 in response to the vision care needs of a growing and aging population. For the 2004-2005 academic year, 5,369 individuals were enrolled in the seventeen schools and colleges of optometry in the United States and Puerto Rico.

Education
The Doctor of Optometry degree requires completion of a 4-year program at an accredited optometry school preceded by at least 3 years of pre-optometric study at an accredited college or

1 American Optometric Association, What is a Doctor of Optometry? (last accessed Nov. 29, 2005) http://www.aoa.org/x792.xml
4 American Optometric Association, supra, note 2.
6 Id.
7 Id.
8 Id.
10 Id.
11 Id.
12 Id.
university (most optometry students hold a bachelor's degree). In 2004, 17 U.S. schools and colleges of optometry held an accredited status with the Council on Optometric Education of the American Optometric Association.

Requirements for admission to schools of optometry include courses in English, mathematics, physics, chemistry, and biology, although a few schools require or recommend courses in psychology, history, sociology, speech, or business. Applicants must take the Optometry Admissions Test, which measures academic ability and scientific comprehension. Admission to optometry school is competitive.

Optometry programs include classroom and laboratory study of health and visual sciences, as well as clinical training in the diagnosis and treatment of eye disorders. Included are courses in pharmacology, optics, vision science, biochemistry, and systemic disease.

Optometrists wishing to teach or do research may study for a master's or Ph.D. degree in visual science, physiological optics, neurophysiology, public health, health administration, health information and communication, or health education. One-year postgraduate clinical residency programs are available for optometrists who wish to specialize in family practice optometry, pediatric optometry, geriatric optometry, vision therapy, cornea and contact lenses, hospital based optometry, primary care optometry, refractive and ocular surgery, or ocular disease. Currently, there are 127 accredited optometric residency programs affiliated with a school or college of optometry, and non-accredited residency programs are available. Non-clinical residencies are also available. Residency training can take place in numerous locations including hospitals, eye care centers, or at in-house facilities depending on the type of residency. Stipends provided vary depending on the institution funding the residency program; for example, the Department of Veterans Affairs’ stipend is currently $27,120 per year, and other institutions pay similarly. There are a handful of programs that offer training without compensation for graduates not selected for funded programs yet motivated to complete a residency.

14 supra, note 3.
16 Id.
17 Id.
18 Id.
19 Id.
21 Id.
22 Id.
24 Ohio State University, Ohio State Optometry: Graduate Program (visited Jan. 3, 2006) http://optometry.osu.edu/graduate/
25 supra, note 23.
26 Id.
The Association of Schools and Colleges of Optometry (ASCO), founded in 1941, is a non-profit education association representing the interests of optometric education.\textsuperscript{27}

**Licensure**

All of the 50 states and the District of Columbia require that optometrists be licensed.\textsuperscript{28} The requirements for licensure are set by each individual state, but all states require graduation from an accredited professional optometric degree program as a prerequisite for licensure.\textsuperscript{29} Additionally, applicants must pass both a written and a clinical State board examination. In many states, applicants can substitute the examinations of the National Board of Examiners in Optometry for part of or the entire written portion of the state examination.\textsuperscript{30} The examinations given by the National Board of Examiners in Optometry consist of 3 components: basic science, clinical science, and patient care.\textsuperscript{31} Licenses for practice are renewed every 1 to 3 years, and all states require continuing education credits for license renewal.\textsuperscript{32}

**Relationship with Physicians**

Optometrists practice autonomously within their own scope of practice. The scope of practice is set by state law and therefore, varies from state to state. Optometrists refer patients to physicians when necessary. For example, they diagnose conditions due to systemic diseases such as diabetes and high blood pressure, and refer patients to other health practitioners when needed.\textsuperscript{33} Not only do optometrists practice autonomously, but they also possess prescriptive privileges specific to eye ailments that do not require physician supervision. For example, optometrists prescribe eyeglasses and contact lenses, and provide vision therapy and low vision rehabilitation. They use drugs for diagnosis of eye vision problems and prescribe drugs to treat some eye diseases. Optometrists in 50 states can prescribe topical drugs for allergy, infection, and inflammation. In 43 states and Washington, D.C., optometrists can prescribe oral pain medications for eye ailments, including narcotics.\textsuperscript{34} Broadly speaking, optometrists are allowed by laws in all 50 states to prescribe all non-controlled substances in all of the drug schedules.

**Reimbursement**

Optometrists consider themselves primary health care providers and therefore desire reimbursement from insurance companies for their services. The managed care industry is one of optometry’s biggest supporters. This is because optometrists are seen as low cost alternatives to their more

\textsuperscript{27} Background and Mission, Association of Schools and Colleges of Optometry, http://www.opted.org/about_background.cfm (last accessed Nov. 29, 2005).
\textsuperscript{28} Frequently Asked Questions, Association of Schools and Colleges of Optometry, http://www.opted.org/info_faq.cfm (last accessed Nov. 29, 2005)
\textsuperscript{29} Id.
\textsuperscript{30} Id.
\textsuperscript{31} Exam Description, National Board of Examiners in Optometry, http://www.optometry.org/exam_descriptions.cfm (last accessed Nov. 29, 2005).
\textsuperscript{32} FAQ, supra, note 27.
expensive, specialized counterparts of ophthalmologists. Not surprisingly, all types of insurance companies in all 50 states reimburse optometrists. Medicaid reimburses optometrists 100% for the services they provide. Also, Medicare reimburses optometrists at rates similar to that of physicians.

**Legislative Agenda**

In 2005, the word “optometrist” was found in the subject heading of 92 pieces of state legislation and the word “optometry” was found in the subject heading of 157. In 2005, the word “optometrist” was found in the text of 171 drafts of enacted state legislation. In 2003, 25 states enacted legislation concerning licensing and scope of practice of optometrists.

Optometrists desire to increase their ability to prescribe glaucoma medication and controlled substances without physician supervision or collaboration. To date, every state authorizes optometrists to prescribe diagnostic procedures and therapeutic medications, and 46 states and the District of Columbia allow optometrists to treat glaucoma. Legislative efforts have been focused on expanding existing privileges or allowing optometrists to prescribe medications for the treatment of glaucoma.

Optometrists also wish to perform invasive procedures such as laser surgery and other forms of surgery related to the eye without physician supervision or collaboration. In 2004, Oklahoma enacted a controversial law redefining the scope of optometry to include benon laser surgery procedures as authorized by the Oklahoma Board of Examiners in Optometry. In April 2004, the Oklahoma Legislature adopted a measure giving optometrists the ability to determine their own scope-of-practice. Then in March of 2005, the Oklahoma Board of Examiners in Optometry also adopted a permanent rule that allows for optometrists to perform more than 100 surgical procedures using scalpels and insertion of needles directly into the eye. On December 17, 2004, the Veterans Health Administration (VHA) responded by rescinding a directive that allowed laser eye surgery to be performed at VA facilities by providers other than ophthalmologists. A new directive (2004-070), issued by VHA Undersecretary Jonathan Perlin, M.D., limits the performance of laser surgery in the VA system to qualified ophthalmologists. There are continuing concerns that laws like this one are harmful to patients and do not ensure that optometrists receive the appropriate level of training to perform these procedures.

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36 2005 Lexis-Nexis state legislation search.  
37 2005 Netscan state legislation search.  
39 Id.  
40 Id.  
41 Id.  
42 McKinley, supra, note 36.  
44 *Supra*, note 39.
PHARMACISTS

Introduction
Pharmacists dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. They advise physicians and other health care practitioners on the selection, dosages, interactions, and side effects of drugs. In recent years, pharmacists have taken on the roles of auditors and counselors to improve patient compliance with medication regimes.

The profession of pharmacy was founded in the art and science of compounding medications. In the 18th century, the practice of pharmacy began to separate from medicine. During this time doctors began prescribing medications to patients and pharmacists began compounding these prescriptions and producing them in mass quantities for general sale. In 1821, the Philadelphia College of Pharmacy and Science was founded as the first established U.S. school of pharmacy. In the 1950s and 1960s the practice of compounding declined due to the creation of commercial drug manufacturers. During this time pharmacists who once compounded medication became dispensers of manufactured drugs.

Pharmacists held about 230,000 jobs in 2002, an increase of 13,000 since 2000. The employment of pharmacists is expected to grow faster than average (an increase of 21-35%) through the year 2012, due to the increased pharmaceutical needs of a growing elderly population and increased use of medications. However, employment is not expected to increase in hospitals as fast as in personal care facilities and home health care agencies.

Education
Most pharmacy schools require students to complete two years of pre-pharmacy study before admission to a professional program. Pre-professional courses can be taken at any regionally accredited university, college, or junior college that offers a pre-pharmacy program. Courses in mathematics, biology, chemistry, and physics are generally required for pharmacy study.

Historically there were two different pharmacy degrees: a BS in pharmacy (B.Pharm.), and doctor of pharmacy (Pharm.D.). In July 1992, a majority of the nation's schools and colleges of pharmacy voted to move toward awarding the doctor of pharmacy (Pharm.D.) degree as the only professional degree in pharmacy. In 2002, only Pharm.D. programs, which generally take six years to complete, began to be accredited by the American Council on Pharmaceutical Education (ACPE). In that year, the ACPE accredited 85 schools to confer Pharm.D. degrees. Many state boards of pharmacy, however, will accept either degree to take the licensing examination.

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4 supra, note 1.
5 Id.
6 Id.
8 supra, note 1.
After graduating from pharmacy school, an increasing number of students today are seeking residency training in pharmacy practice. Over 400 pharmacy residency programs are offered in hospitals, community pharmacies, and specialized facilities. Residency programs typically last one to two years and may be taken in general pharmacy practice, clinical pharmacy practice, or other specialty areas depending upon personal interests and specific career requirements. Completion of a pharmacy residency is often required to practice in specific settings such as hospitals and academics. Over 400 pharmacy residency programs are offered in hospitals, community pharmacies, and some specialized facilities.9

Graduate programs in pharmaceutical sciences are also available, including a master's of science degree (M.S.) and doctor of philosophy degree (Ph.D.); however, an undergraduate degree in pharmacy is not a prerequisite for some of these programs. Students graduating with one of these advanced degrees generally practice in research areas and may not even qualify to be a licensed pharmacy practitioner.

**Licensure**
The requirements necessary to obtain a license to practice pharmacy vary from state to state. Generally, to be licensed, a pharmacist must graduate from an accredited college of pharmacy, participate in a residency program, and pass the North American Pharmacist Licensure Examination (NAPLEX).10 Pharmacists who wish to obtain additional specialized knowledge and skills (beyond that required for licensure) in areas such as oncology pharmacy may complete a certification program from the Board of Pharmaceutical Specialties. Nearly 4,500 pharmacists are certified in one or more of the specialties.11 Basic eligibility requirements for board certification include an entry-level pharmacy degree, a current pharmacy license, a specified amount of training and experience in the specialty, and passing the certification exam. The annual written exam consists of 200 multiple-choice questions.12

**Relationship with Physicians**
Several states have enacted legislation that would allow a pharmacist and physician to enter into a collaborative practice agreement. The type of authority given to pharmacists within these agreements varies among the states and may include initiating or monitoring drug therapy regimens, ordering laboratory tests, or ordering procedures. Many physicians oppose pharmacists’ participation in drug therapy management on the basis that pharmacists do not have adequate training in patient care, diagnosis, and prescriptive authority.

**Reimbursement**
Currently pharmacists are not reimbursed for their services beyond drug dispensing. At this time the pharmacy gets reimbursed by payors and the pharmacists are paid a salary by the pharmacy. However, it is thought that the expanded ability of primary care offered by collaborative practice

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12 Id.
agreements will alleviate significant health care problems such as escalating costs, insufficient access to medical care, and inconsistent quality of care. Because drug benefits remain a therapeutic mainstay of managed care plans, continuing attention has been focused on payment to pharmacists based on performance beyond dispensing to include cognitive services such as: drug-related problems (adverse drug reaction avoidance and resolution, patient noncompliance, drug-therapy management) and participation in disease-management programs (e.g., for diabetes, asthma, and cholesterol monitoring). In light of this, pharmacists are seeking compensation for the provision of such cognitive services.

In June 2002, the Medicare Payment Advisory Commission provided a document to Congress, entitled "Medicare Coverage of Non-physician Practitioners." The statement recommends that the Secretary assess models for collaborative drug therapy management services needed for pharmacist compensation. It supports such compensation especially in outpatient settings. The National Committee for Quality Assurance (NCQA) stated that the pharmacist must accept responsibility for each patient's drug-related outcomes to effectively provide pharmaceutical care and be reimbursed for their efforts. Payors and patients are now demanding increased accountability for the delivery of pharmaceutical care services.

In 2000, the Medicaid program called Iowa Pharmaceutical Case Management (PCM) began to reimburse pharmacists for cognitive services. A study of the pharmaceutical care plans of pharmacists applying to participate in PCM showed that although pharmacists were able to identify and document drug therapy problems and causes, more than 1/4 of the care plans did not document an indication to follow up with the patient, especially those from chain pharmacies. Follow up is a key component of the pharmaceutical care process.

The American Pharmacists Association (AphA) submitted comments to the national Medicaid Commission on July 27, 2005, to express its support for physician reimbursement. The statement noted that one suggested payment formula would meet these criteria: 1) reimbursement closely reflects pharmacies’ actual acquisition cost; 2) the basis for product cost calculations can be verified; 3) the components of the product cost calculations are defined in law; 4) and there are penalties for false reporting. The APhA generally supports these ideas, but also holds that all elements associated with dispensing medications should be accounted for in a formula.

**Legislative Agenda**

Pharmacists are seeking expanded scope of practice in these areas: collaborative practice agreements, dispensing of emergency contraception, and administering immunizations and vaccinations. Indeed, one of the goals of the profession is to advocate for collaborative practice agreements in all 50 states. Currently, more than 40 states have enacted laws to allow pharmacists to

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14 *Id.*
17 *Id.*
18 *Id.*
enter into collaborative practice agreements with physicians.\textsuperscript{20} The agreements vary from state to state: some states limit authority to pharmacists with specified training or education, authorize different scope of practices, limit collaborative practice agreement authority to specific pharmacist practice settings or to patients in certain settings, or require registration of participating pharmacists and prescribers.\textsuperscript{21} As previously mentioned, the type of authority permitted in these practice agreements ranges among the states. Generally speaking, however, collaborative practice agreements allow pharmacists to initiate, modify, and/or discontinue a patient’s medication regimen according to protocol outlined in the collaborative agreement.

The issue of emergency contraception being dispensed by pharmacists without a prescription has been the focus of legislation in recent years. Currently, eight states allow pharmacists to dispense emergency contraceptive prescriptions without a physician’s prescription under collaborative practice agreements: Alaska, California, Hawaii, Maine, Massachusetts, New Hampshire, New Mexico, and Washington.\textsuperscript{22} On September 15, 2005, the Massachusetts legislature overrode Governor Romney’s veto and became the 8\textsuperscript{th} state. In August 2005, Governor Pataki vetoed H.B. 116, which would have authorized a licensed pharmacist to dispense emergency contraception prescribed by a licensed physician, certified nurse practitioner or licensed midwife in accordance with written procedures and protocols. An additional issue that has emerged relates to pharmacists being able to legally refuse to issue emergency contraceptive prescriptions. The California legislature approved SB 644 in September 2005, requiring pharmacists to fill all legal prescriptions, but providing an exception when a pharmacist has a previously noted his ethical, moral, or religious reasons for refusing to dispense a drug. In Illinois in September 2005, the Joint Committee on Administrative Rules approved making permanent Governor Blagojevich’s emergency rule requiring pharmacies to accept and fill prescriptions for contraceptives. For the rule to become official, it must be filed with the Secretary of State.\textsuperscript{23} Wisconsin AB 285 would allow pharmacists to refuse to fill certain prescriptions for “abortions, assisted suicides and euthanasia” for moral or religious reasons. Critics say the bill could allow a pharmacist who believes contraceptives cause abortions to refuse to fill contraceptives.\textsuperscript{24}

Another active area in the state legislatures regarding pharmacists focuses on the administration of immunizations and vaccinations, modifying drug therapy, performing physical assessments, and ordering laboratory tests. In 2004, 32 states allowed pharmacists to administer immunizations.\textsuperscript{25} Florida and Indiana legislatures considered bills in 2005 that would have allowed pharmacists to administer immunizations, although neither passed before the end of their legislative sessions.

Finally, pharmacists have also advocated for reimbursement from Medicare, Medicaid, and private insurers for their services beyond dispensing medications, such as drug therapy and disease-management programs.

\textsuperscript{21} Id.
\textsuperscript{22} Andrew McKinley, \textit{Overview: Health Care Providers and Facilities}, Health Policy Tracking Service, Aug. 15, 2005.
PHYSICAL THERAPISTS

Introduction

Physical therapists (PTs) provide services that help restore function, improve mobility, relieve pain, and prevent or limit permanent physical disabilities of patients suffering from injuries or disease. They restore, maintain, and promote overall fitness and health. Their patients include accident victims and individuals with disabling conditions such as low back pain, arthritis, heart disease, fractures, head injuries, and cerebral palsy. Some physical therapists treat a wide range of ailments; others specialize in areas such as pediatrics, geriatrics, orthopedics, sports medicine, neurology, and cardiopulmonary physical therapy.

Therapists examine patients’ medical histories, then test and measure their strength, range of motion, balance, coordination, posture, muscle performance, respiration, and motor function. They also determine patients’ ability to be independent and reintegrate into the community or workplace after injury or illness. PTs then develop treatment plans describing a treatment strategy, the purpose of this strategy, and anticipated outcome. Treatment often includes exercise for patients who have been immobilized and lack flexibility, strength, or endurance. They encourage patients to use their own muscles to further increase flexibility and range of motion before finally advancing to other exercises improving strength, balance, coordination, and endurance. Their goal is to improve how an individual functions at work and home.

Additionally, PTs use electrical stimulation, hot packs or cold compresses, and ultrasound to relieve pain and reduce swelling. They may use traction or deep-tissue massage to relieve pain. Therapists also teach patients to use assistive and adaptive devices such as crutches, prostheses, and wheelchairs. As treatment continues, physical therapists document progress, conduct periodic examinations, and modify treatments when necessary.¹

The field of physical therapy was established in Britain in the latter part of the 19th century. Shortly thereafter American orthopedic surgeons began to train young women graduates of physical-education schools to care for patients in doctors’ offices and in hospitals. The first school of physical therapy was established at Walter Reed Army Hospital, Washington, D.C., after the outbreak of World War I, and 14 additional schools were established soon afterward.

After World War II physical therapy became widely used in the care of patients. Among the reasons for the great increase in demand for physical-therapy services were the impressive results obtained in treating those injured in battle and industry during World War II and the Korean and Vietnam wars; the increase in chronic disability resulting from the larger number of older persons in the population; and the rapid development of hospital and medical care programs.²

Physical therapists held about 137,000 jobs in 2002. According to the Bureau of Labor Statistics, employment of physical therapists is expected to grow faster than the average (increase by 36 % or more) for all occupations through 2012.³

³ supra, note 1.
**Education**

According to the American Physical Therapy Association, there were 203 accredited physical therapist programs in 2003.\(^4\) Of the accredited programs, 113 offered master’s degrees, and 90 offered doctoral degrees. All physical therapist programs seeking accreditation are required to offer degrees at the master’s degree level and above, in accordance with the Commission on Accreditation in Physical Therapy Education.

Competition for entrance into physical therapist educational programs is intense, so interested students need superior grades in high school and college, especially in science courses. Courses useful when applying to physical therapist educational programs include anatomy, biology, chemistry, social science, mathematics, and physics. Before granting admission, many professional education programs require experience as a volunteer in a physical therapy department of a hospital or clinic.

Physical therapist programs start with basic science courses such as biology, chemistry, and physics, and then introduce specialized courses such as biomechanics, neuroanatomy, human growth and development, manifestations of disease, examination techniques, and therapeutic procedures. Besides classroom and laboratory instruction, students receive supervised clinical experience in a variety of settings. Individuals who have a 4-year degree in another field and want to be a physical therapist should enroll in a master’s or a doctoral level physical therapist educational program.\(^5\)

**Licensure**

Licensure requires graduation from an accredited physical therapist professional program. Also, all 50 states require physical therapists to pass a licensure exam after graduation from one of the physical therapy schools. All three degrees, the bachelor’s, the master’s and the doctor’s, are appropriate degrees for licensure in every state.\(^6\)

**Relationship with Physicians**

PTs work with a variety of health care professionals including physicians. Currently, the majority of states do not allow direct access to a physical therapist. Twelve states currently require a physician referral before a physical therapist may treat the patient.\(^7\) Traditionally, access to physical therapy services required that a patient see a physician in order to obtain a referral for those services. However, physical therapists began to assert that they had the skills and education to treat patients without a referral, and therefore, they argued patients should be given “direct access” to their services. A number of states responded by allowing direct access; others have allowed it with limitations such as direct access only for purposes of evaluation, or for short periods of time after which the patient must obtain a referral from a licensed physician. For example, Virginia limits direct access to cases when a patient has previously been referred to a physical therapist for the same

\(^4\) Id.
\(^5\) Id.
injury, disease or condition. Some states either provide direct access through ambiguous statutory language or allow direct access for a limited time or for the purpose of evaluation only. This enables the PT to provide certain services such as health screenings or assessments, consumer education, and advocacy programs without physician referral. Other states have maintained that a referral is always required before physical therapy can take place. Seventeen states currently permit direct access to physical therapy services without any limitation.

**Reimbursement**

Medicare, state Medicaid programs, and private insurance companies all reimburse PTs for the services they provide. PTs are qualified and recognized to perform spinal manipulation therapy services under Medicare. In fact, APTA describes revisions to the Medicare Manual for Therapy Services, released May 6, 2005, as a significant advance in helping physical therapists and physical therapist assistants provide care for Medicare beneficiaries. The provisions omit the requirement for a physician visit prior to certification and give physical therapists up to 30 days to obtain certification of the plan of care.

PTs argue that one of the most effective tools for cost control is direct access, rather than requiring patient referrals from physicians. They claim that states and insurance companies reimbursing under the direct access method will realize cost savings of approximately $1,200 per patient episode. Therefore, PTs are seeking reimbursement through direct access to their services by all types of carriers. According to the Ethical Physical Therapy Association (EPTA), physical therapists in each state are also attempting to rewrite Physical Therapy Practice Acts to restrict PTs from working in physician clinics or for physicians. The language would make it illegal for a physical therapist to work in a physician-owned clinic, restricting the medical scope of service for the physician groups and the employment options for physical therapists. A physician could legally provide physical services, however.

**Legislative Agenda**

In 2005, derivatives of the term “physical therapist” were found in the subject heading of 944 drafts of state legislation. The main goal of the profession is to amend current statutes at the state level to permit direct access to PT services. Another goal of the profession is to continue to gain acceptance as providers of spinal manipulation.

The only states that either do not allow any direct access to physical therapy services or only allow it for evaluations include Alabama, Connecticut, Georgia, Hawaii, Indiana, Kansas, Michigan, etc.

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9 Id.


Mississippi, Missouri, New York, and Oklahoma. The Connecticut legislature introduced a bill in 2005 that would have permitted direct access to PT services, HB 6767, but it failed to pass.

Some state legislatures have recently focused on restricting the scope of practice of PTs. In Michigan, HB 4325 was introduced in 2005 to only allow licensed physicians who have successfully completed additional training in the performance and interpretation of electrodiagnostic studies to perform needle electromyography or interpret nerve conduction tests. This means that physical therapists could not perform the testing of neuromuscular functions utilizing nerve conduction tests and needle electromyography. However, a licensed physical therapist, certified by the American Board of Physical Therapy Specialties as an electrophysiologic clinical specialist on the effective date of the bill could perform such studies if he or she has been performing them in Michigan consistently within the five years before the effective date. The bill passed both houses but is not yet law. In New Jersey, a similar bill was considered in the 2004-2005 legislative session, AB 456, providing that only physicians may perform needle electromyography or interpret nerve conduction studies and evoked potentials. The bill did not pass. In Washington, SB 6011 was introduced in 2005 to confine the performance and interpretation of nerve conduction tests, and the interpretation of needle electromyography, to licensed physicians. The bill did not pass, but the state does allow carryover of bills to the 2006 session.

http://www.apta.org/AM/Template.cfm?Section=Top_Issues2&TEMPLATE=/CM/ContentDisplay.cfm&CONTEN TID=22369
PODIATRISTS

Introduction
Podiatrists diagnose and treat disorders, diseases, and injuries of the foot and lower leg to keep these parts of the body working properly. In some states, podiatrists also refer to themselves as doctors of podiatric medicine or podiatric physicians. For example, Iowa law allows podiatrists to be referred to as podiatric physicians. Podiatrists treat corns, calluses, ingrown toenails, bunions, heel spurs, arch problems, ankle and foot injuries, deformities, infections, and foot complaints associated with diseases such as diabetes. To treat these problems, podiatrists prescribe drugs, order physical therapy, set fractures, perform surgery, and order x-rays and laboratory tests.

The history of the profession began in the 1700s with a British man, David Low, who coined the term "chiropody" [chir = hand; pody = feet], which was the original name of podiatry. At the time the practice of podiatry involved the treatment of both hands and feet, and it was much less medically oriented than it is today. Common treatments included primarily corn and callus removal, nail care, and diabetic foot care. In 1961, the American Podiatric Medical Association (APMA) set up the Selden Commission to review podiatric medical education. The Selden Commission's final report had a significant impact on the future of podiatric medical education. The Commission recommended a 4-year education program comparable to other medical schools and it also spurred the change in terminology from Chiropody to Podiatry. Since then, podiatry has evolved from a palliative art, to a medical and surgical specialty of the lower limb.

Podiatrists held about 10,000 jobs in 2004, and about 23% of podiatrists are self-employed. Most podiatrists are solo practitioners, although more are entering partnerships and multi-specialty group practices. Other podiatrists are employed in hospitals, nursing homes, the U.S. Public Health Service, and the Department of Veterans Affairs. Employment of podiatrists is expected to grow about as fast as the average (increase 9 to 17 percent) for all occupations through the year 2014.

Education
Presently, there are seven colleges of podiatric medicine in the United States that are accredited by the Council on Podiatric Medical Education of the American Podiatric Medical Association, and they all grant the degree of doctor of podiatric medicine (DPM). The AACPM describes its mission as to enhance both academic podiatric medicine and the education of future podiatric physicians.

Candidates for admission to all seven colleges are required to complete a baccalaureate degree before admission. Candidates are usually required to take the Medical College Admission Test.

1 IA ST § 135.1.
4 Bureau, supra, note 2.
5 Id.
(MCAT) as a prerequisite to admission, however, some colleges will accept the Graduate Record Exam (GRE) or Dental Admission Test (DAT) in lieu of the MCAT.\textsuperscript{7}

The course of instruction leading to the DPM degree is four years in length. The first two years are devoted largely to classroom instruction and laboratory work in the basic medical sciences. During the third and fourth years, students concentrate on courses in the clinical sciences, gaining experience in the college clinics, community clinics, and accredited hospitals. Clinical courses include general diagnosis (history taking, physical examination, clinical laboratory procedures, and diagnostic radiology), therapeutics (pharmacology, physical medicine, orthotics, and prosthetics), surgery, anesthesia, and operative podiatric medicine.\textsuperscript{8}

Most prospective podiatrists seek postdoctoral residency programs after graduation. These programs, designed to strengthen and refine the practitioner’s podiatric medical primary care, orthopedic, surgical, and public health skills, are based in hospitals. These programs are at least one year in duration, and may extend to four years.\textsuperscript{9}

**Licensure**

Podiatrists are licensed in all 50 states, the District of Columbia, and Puerto Rico to treat the foot and its related or governing structures by medical, surgical, or other means. State licensing requirements generally include graduation from one of the seven accredited colleges of podiatric medicine, passage of the National Board exams, postgraduate training (a residency), and written and oral examinations.

Satisfactory completion of Parts I and II of the National Board is one of the requirements for state licensure. Part I covers basic science areas and is generally taken at the conclusion of the second year of podiatry school. Part II covers clinical areas and is taken in the spring of the fourth year, prior to graduation. Most states will also require a written and/or oral examination prior to licensure.

Podiatrists may also become board certified in one of three specialty areas: orthopedics, primary medicine, or surgery. National podiatric specialty boards grant certification to qualified podiatrists who have completed the specified educational requirements and who successfully complete written and oral examinations.\textsuperscript{10} Finally, most states impose continuing podiatric medical education requirements for license renewal.\textsuperscript{11}

**Relationship with Physicians**

Podiatrists usually work independent of physicians in their own offices. However, podiatrists only practice autonomously within their scope of practice. Some states restrict podiatrists’ scope of practice. Missouri restricts licensed podiatrists to treatment of the foot, while other states give an


\textsuperscript{8} Bureau, *supra*, note 5.

\textsuperscript{9} *Id.*


\textsuperscript{11} *Id.*
even more expansive scope of practice. For example, Idaho allows podiatrists to treat both the leg and the foot.\textsuperscript{12} Even broader, California permits podiatrists to treat the foot, and muscle and tendons of the leg governing the function of the foot.\textsuperscript{13} However, when podiatrists recognize overt symptoms of underlying diseases that are outside of their scope of practice, they refer patients to the appropriate physician. Often, the foot may be the first area to show signs of serious conditions such as arthritis, diabetes, and heart disease. For example, diabetics are prone to foot ulcers and infections due to poor circulation. Podiatrists consult with and refer patients to other health practitioners when they detect symptoms of these disorders.\textsuperscript{14}

Not only do podiatrists practice independently of physicians, but they also have independent prescriptive authority in all of the 50 states.

**Reimbursement**

Insurance companies recognize podiatrists as cost-effective alternatives to orthopedic surgeons. Therefore, podiatrists are being reimbursed by all types of insurance companies for the services they provide. Nearly all private and public health insurance plans provide coverage for the services of doctors of podiatric medicine. Even though third-party coverage of podiatrists' services generally includes the medical and surgical care of foot complaints, details of such coverage can and do vary among plans. Most Blue Shield plans, as well as those of commercial health insurance carriers, make provision in their contracts for the medical and surgical care of the feet, whether physicians or podiatrists render such care. Medicare reimburses podiatrists in all 50 states. Also, 44 states Medicaid programs currently reimburse podiatrists for their services.\textsuperscript{15}

**Legislative Agenda**

In 2005, the word “podiatrist” was found in the subject heading of 44 pieces of legislation, and the word “podiatry” in 40 bills.\textsuperscript{16} The main goal of the profession is to increase their scope of practice to beyond that of the foot and move upward into areas of the leg and other governing structures of the foot. Some podiatrists are also advocating expanding scope of practice to the hand.

In South Carolina, a bill introduced in 2005, HB 3405, would allow podiatrists to amputate toes and parts of the foot. The bill was sent to the Senate Committee on Medical Affairs in May, and has carried over to the 2006 legislative session.

\textsuperscript{12} ID ST § 54-602.
\textsuperscript{13} CA BUS & PROF § 2472.
\textsuperscript{14} Bureau, supra, note 2.
\textsuperscript{16} Lexis-nexus search completed on Feb. 9, 2006.
PSYCHOLOGISTS

Introduction
Psychologists study the human mind, behavior, and related physiological processes. They apply their knowledge to a wide range of endeavors, including health and human services, management, education, law, and sports. Research psychologists investigate the physical, cognitive, emotional, or social aspects of human behavior. Psychologists in applied fields provide mental health care in hospitals, clinics, schools, or private settings.1

Although the ancient Greeks speculated about the mind, the real origin of psychology began with Descartes and the Renaissance, when the study of the mind began to attract the interests of scholars. However, psychology was not born as an independent discipline until 1879 when Wilhelm Wundt established the first psychological research laboratory in Leipzig, Germany. Wundt argued that psychology should be the scientific study of consciousness. This new discipline grew rapidly in North America in the late 19th century.2

From this background different schools of thought emerged including structuralism, functionalism, behaviorism, Gestalt psychology, psychoanalysis, and humanism. Clinical psychology also grew rapidly in the 1950s due to the demands of World War II. With this, psychology became a profession as well as a science. This movement toward professionalization eventually spread to other areas in psychology.3

Contemporary psychology is a diversified science and profession that has grown rapidly in recent decades. In addition to practicing in a variety of different work settings, psychologists specialize in many different areas including clinical, cognitive, counseling, developmental, research, industrial-organizational, school, and social psychology.4

Psychologists held about 182,000 jobs in 2000. Employment of psychologists is expected to grow more slowly than the average (0 to 9%) for all occupations through the year 2006.

Education
Students interested in pursuing a career in psychology may do so through a bachelor’s, master’s, or doctoral degree. Most colleges and universities offer a bachelor’s degree in psychology. The bachelor’s degree qualifies a person to assist psychologists and other professionals in community mental health centers, vocational rehabilitation offices, and correctional programs. However, without additional academic training, their opportunities in psychology are severely limited.5

Most graduate programs in psychology require students to take the Graduate Record Exam (GRE) for admission. Some schools may require taking both the GRE Aptitude (includes verbal, quantitative, and analytical sections) and the Advanced Test in Psychology, as well as the Millers

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3 Id.
4 Id.
5 Id.
Analogies Test (MAT). Some universities require an undergraduate major in psychology. Others prefer only course work in basic psychology with courses in the biological, physical, and social sciences, statistics, and mathematics.\textsuperscript{6}

Most students need at least 2 years of full-time graduate study to earn a master's degree in psychology. Requirements usually include practical experience in an applied setting and a master's thesis based on an original research project. Persons with a master's degree in psychology often work as school or industrial-organizational psychologists. Others work as psychological assistants, under the supervision of doctoral-level psychologists, and conduct research or psychological evaluations.\textsuperscript{7}

Both the PsyD and the PhD degree programs lead to the doctoral degree in psychology. A doctoral degree is generally required for employment as a licensed clinical or counseling psychologist. A doctoral degree usually requires 5 to 7 years of graduate study. The PhD degree culminates in a dissertation based on original research. Courses in quantitative research methods, which include the use of computer-based analysis, are an integral part of graduate study and are necessary to complete the dissertation. The PsyD may be based on practical work and examinations rather than a dissertation. In clinical or counseling psychology, the requirements for the doctoral degree generally include a year or more of internship. Psychologists with a PhD qualify for a wide range of teaching, research, clinical, and counseling positions in universities, elementary and secondary schools, private industry, and government. Psychologists with a PsyD generally work in clinical positions.\textsuperscript{8}

**Licensure**

To practice psychology in a state an individual must be licensed as a psychologist according to the laws and regulations in effect in that particular state. In most states, licensure for the independent practice of psychology requires a doctoral degree in psychology. About half the states have a category of licensure for the supervised practice of psychology, which usually requires at least a master’s degree in psychology. Also, all states require passage of the Examination for Professional Practice of Psychology (EPPP) for licensure. The passing score in each state is set by law or regulation in that jurisdiction. Many states and provinces require a jurisprudence examination or an oral examination in addition to the EPPP.\textsuperscript{9}

Not only do licensing laws vary by state but also by the type of position or specialty. For example, clinical and counseling psychologists generally require a doctorate in psychology, completion of an approved internship, and 1 to 2 years of professional experience. Most states certify those with master’s degrees as school psychologists after completion of an internship. Some states require continuing education for license renewal.\textsuperscript{10}

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\textsuperscript{6} Id.
\textsuperscript{7} Id.
\textsuperscript{8} Id.
\textsuperscript{9} Association of State and Provincial Psychology Board, *Licensure Requirements in General* (visited March 21, 2000) \url{http://www.asppb.org/reqs.html}.
**Relationship with Physicians**

Psychologists can practice independently or under the supervision of other professionals. However, most states require licensed psychologists to limit their practice to areas in which they have developed professional competence through training and experience. Those psychologists who practice independently usually are required to possess doctoral-level degrees. However, Kentucky is one of several states that allow psychologists with master’s degrees to practice independently in fields such as counseling and school psychology.  

New Mexico lawmakers enacted HB 170 on March 5, 2002. The legislation allows the New Mexico State Board of Psychological Examiners to issue both conditional prescription certificates and prescription certificates to doctoral level psychologists who meet certain criteria. The criteria include licensure and completion of additional training and certification. Psychologists holding a conditional certificate may prescribe psychotropic medication under the supervision of a licensed physician. Psychologists granted a prescription certificate may prescribe psychotropic medication without physician supervision. The territory of Guam also allows psychologists to administer, prescribe, and dispense drugs in collaborations with a physician.

Psychologists are advocating for similar prescriptive authority in the states. Since 1995, 31 states have created psychologist prescriptive rights task forces. Training programs have been created in California, Georgia, Hawaii, Illinois, Louisiana, Florida, Massachusetts, Missouri, New Jersey, New Mexico, Oklahoma, and Texas; programs are expected in Minnesota and Oregon. In 2003, five states including Florida, Georgia, Illinois, Tennessee, and Texas introduced bills that extend the scope of practice of psychologists by granting prescriptive rights. Florida SB 1820, Illinois SB 308, and Texas HB 3451 all allow licensed psychologists to prescribe drugs, including, but not limited to, controlled substances. However, only Florida’s bill is expected to return in the next session. Georgia HB 717 and Tennessee HB 446 would have granted the ability to prescribe medications and lab tests.

**Reimbursement**

Currently, Medicare reimburses psychologists at a 100% of the physician fee schedule for their services. Both Medicaid and private insurers also reimburse psychologists for the services they provide.

**Legislative Agenda**

In 2003, the word “psychologist” was found in the subject heading of 98 pieces of state legislation. The main goal of the profession, as mentioned above, is to obtain prescriptive privileges in the states.

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11 Eastern Kentucky University, *Careers in Psychology that require Graduate Degrees* (modified Nov. 11, 1999) [http://www.psychology.eku.edu/wilson/gradcareer.htm](http://www.psychology.eku.edu/wilson/gradcareer.htm).
13 Id.
15 Phone Conversation with American Psychological Association (March 29, 2000).
16 Lexis-Nexis 2003 state legislation search.
**ACUPUNCTURISTS**

**Introduction**
Acupuncture is an ancient system of healing developed over thousands of years as part of the traditional medicine of China, Japan, and other Eastern countries. The earliest records of acupuncture date back over 2,000 years and today there are over 3,000,000 practitioners worldwide. A majority of these practitioners practice in the East but popularity of acupuncturists has also risen in the West over the last 50 years.

The practice of acupuncture is thought to have begun with the discovery that the stimulation of specific areas on the skin affects the functioning of certain organs of the body. It later evolved into a system of medicine that restores and maintains health by the insertion of fine needles into acupuncture points just beneath the body surface. These points are in very specific locations and lie on channels of energy. Moxibustion, the warming of acupuncture points through the use of smoldering herbs, is often used as a supplement and needles may also be stimulated using a small electric current.¹ The aim of acupuncture is to treat the whole patient and to restore the balance between the physical, emotional, and spiritual aspects of the individual in order to prevent and treat disease.²

**Education**
Both physicians and non-physicians can train to be acupuncturists. Physicians and other medical professionals like chiropractors and podiatrists who are interested in acupuncture generally train for a short duration of time and receive certificates in acupuncture. Others who are interested in acupuncture can obtain more extensive training and receive either diplomas or masters degrees. According to the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM) there are over 50 schools of acupuncture in the United States with accredited or candidacy status with the Commission.³ The prerequisites for entry into these degree programs vary from school to school. Some schools require a bachelor’s degree for admission while others require only 2 years of undergraduate training or none at all.

Although the curriculum for the degree programs varies slightly from school to school, it generally entails training students in diagnostic, communication, and treatment skills required to practice acupuncture as independent practitioners. Upon successful completion of the degree programs, students are eligible to sit for the national board examination, given by the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM). After passing the board's exam, students can be eligible for licensure in most states in the practice of acupuncture.

**Licensure**
Licensure for acupuncturists varies from state to state. Currently, 34 states require passage of the NCCAOM for licensure.⁴ However, California and Nevada give their own examinations, while Louisiana does not require students to take any examination at all.

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² *Id.*
The amount and type of training required for licensure also varies from state to state. For example, in Pennsylvania a physician must complete 200 hours of training to qualify as an acupuncturist. A non-physician acupuncturist must have two years of acupuncture training plus two years of college and must be supervised by a medical doctor registered as an acupuncture supervisor.

In New Jersey, non-physician acupuncturists must have a bachelor's degree and have completed a two-year course in acupuncture from a school approved by the Accreditation Commission for Acupuncture and Oriental Medicine. Medical doctors and dentists can practice acupuncture, but cannot call themselves acupuncturists if they haven't passed New Jersey's certification test.

To date, 40 states including Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia and Wisconsin--and the District of Columbia recognize acupuncturists either through licensure, certification or registration.5

Relationship with Physicians
As mentioned above many physicians are licensed acupuncturists and acupuncture is within the scope of practice of physicians in 43 states. Some of these states require additional hours of training for physicians to practice acupuncture. Many non-physicians are also allowed to practice acupuncture. Connecticut, Maine, Tennessee, and West Virginia allow nurse practitioners to practice acupuncture under physician supervision. Also, Arizona, Connecticut, Kansas, Maine, Michigan, Tennessee, and West Virginia allow physician assistants to practice acupuncture under the supervision of a physician. Chiropractors are able to practice acupuncture in some states but sometimes are required to pass an examination and usually are required to have additional training to do so. Also, dentists in 9 states, podiatrists in 5 states, and naturopaths in 6 states are all currently allowed to perform acupuncture within their scopes of practice.6 Additionally, licensed acupuncturists without previous medical degrees are allowed to practice independently and autonomously in many states if certified.

Acupuncturists are allowed to prescribe herbal pharmacopoeia (herbal medicines) with no physician supervision in certain states. However, most states do not give acupuncturists any prescriptive privileges.

Reimbursement
Although the popularity of acupuncture has grown in the healthcare industry, this popularity has shown very little impact upon the issue of reimbursement. Currently, Medicare programs do not reimburse acupuncturists for their services regardless if they are physicians or non-physicians. Medicaid programs in eight states do reimburse for acupuncture services.7 However, some states have private insurance plans that reimburse acupuncturists for their services. For example,

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5 Id.
California has the state’s first ever acupuncture insurance plan called Acupuncture Plus that reimburses acupuncturists for their services.\(^8\) Also, about 47% of employees with health benefits had acupuncture coverage in 2004, up from 33% in 2002, according to a 3,000-employer survey released by the Kaiser Family Foundation and Health Research and Educational Trust.\(^9\) Such coverage is generally provided for patients who need to relieve certain postoperative dental pain or nausea and vomiting related to chemotherapy or pregnancy, but coverage varies.

**Legislative Agenda**

In 2005, the word “acupuncture” was found in the text of 668 drafts of state legislation that moved through state legislatures.\(^10\)

One goal of the profession is to be reimbursed by all insurance companies including Medicaid, Medicare, and a broader base of private insurance companies. The placement of licensure mechanisms in all 50 states is another professional goal.

In 2005, South Carolina HB 3891 became law when the state legislature overturned Governor Sanford’s veto. This Acupuncture Act of South Carolina sets up an acupuncture committee under the medical board, requires completion of the NCCAOM Diplomate for any individual to practice acupuncture in South Carolina, states that anyone practicing acupuncture without a license is guilty of a misdemeanor, and eliminates physician supervision and referral requirements. On Oct. 7, 2005, Governor Schwarzenegger of California vetoed AB 1113, which would have authorized a Licensed Acupuncturist to "diagnose within his or her scope of practice." He then signed AB 1114, which will require a Licensed Acupuncturist to complete 50 hours of continuing education every two years, an increase from the current requirement of 30 hours. The legislation goes into effect on January 1, 2006.

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\(^10\) Netscan 2005 legislation search.
CHIROPRACTORS

Introduction
Chiropractors, who also refer to themselves as doctors of chiropractic or chiropractic physicians, diagnose and treat patients whose health problems are associated with the body’s muscular, nervous, and skeletal systems, especially the spine.1

Chiropractic was developed in 1895 by Daniel David Palmer in Davenport, Iowa, the home of the first chiropractic school in the United States. Palmer premised his theory of chiropractic to state that vertebrate impinging upon the spinal nerves caused many ailments. Palmer called such interference “subluxations”. Palmer stated that after manipulations or adjustments to correct proper vertebral alignment, normal brain and nerve transmission are restored and the body is able to resume its innate ability to recover from illness.2

Over the years, practitioners of chiropractic have evolved into two factions with two separate organizations: the “straight” chiropractors, who adhere strictly to Palmer’s philosophy of only locating and eliminating subluxations; and the “mixer” chiropractors, who combine spinal adjustments with other adjunct therapies such as hot or cold treatments, nutrition counseling, and exercise recommendations. Today, the majority of practicing providers frequently use new technologies in science to locate and eliminate subluxations.3

Chiropractors held about 50,000 jobs in 2000.4 According to the American Chiropractic Association, there were between 55,000 to 70,000 chiropractors practicing in 1998.5 A recent study estimated that the number of chiropractors would double by the year 2010 to over 100,000, exceeding the 16 percent increase projected for medical doctors.

Education
The Council on Chiropractic Education, the accrediting agency for chiropractic education, currently accredits 16 colleges of chiropractic.6 The prerequisites for entry vary from college to college. For example, the National College of Chiropractic requires a bachelor’s degree upon entry while other colleges require completion of approximately 90 undergraduate semester hours upon entry.7 Regardless of length, generally all colleges of chiropractic require minimum semester hours of the following courses before admission: biology, chemistry (organic and inorganic), physics, English, psychology, and social science courses.8

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3 Id.
6 Medical College of Wisconsin, Non-Physician Clinician Summary.
A chiropractic program consists of four academic years of professional education averaging a total of 4,822 hours of course work. Several areas of study are emphasized during the course of chiropractic education including adjustive techniques/spinal analysis, principles/practices of chiropractic, physiologic therapeutics, and biomechanics.\(^9\)

Upon completion, chiropractors generally must pass a three-part examination offered by the National Board of Chiropractic Examiners. This testing series covers basic sciences, clinical sciences, and clinical competency. A fourth segment (Part IV) has recently been introduced to assess practical skills. This fourth segment is being required by an increasing number of state licensing boards.\(^10\)

Specialty training is available through U.S. chiropractic colleges for part-time postgraduate programs and full-time residency programs. Postgraduate education programs are available in family practice, applied chiropractic sciences, clinical neurology, orthopedics, sports injuries, pediatrics, nutrition, rehabilitation, and industrial consulting. Residency programs include radiology, orthopedics, family practice, and clinical sciences. A typical residency program is 2-3 years in duration and includes ambulatory care and inpatient clinical rotations at chiropractic and medical facilities, along with didactic and research experiences. Other less rigorous postgraduate training programs may take 1-3 years to complete on a part-time basis. Both the residency and postgraduate programs lead to eligibility to sit for competency examinations offered by specialty boards recognized by the American Chiropractic Association, the International Chiropractors’ Association, and the American Board of Chiropractic Specialties. Specialty boards may confer "Diplomate" status in a given area of focus upon successful examination.\(^11\)

**Licensure**

The practice of chiropractic is licensed and regulated in all 50 states in the United States. State licensing boards regulate, among other factors, the education, experience and moral character of candidates for licensure, and protect the public health, safety and welfare.

Some states require a minimum of two years in an accredited undergraduate program, which includes a prescribed science content. Eight states (Florida, Kansas, Maryland, Montana, North Carolina, Rhode Island, West Virginia and Wisconsin) require a bachelor's degree of candidates for licensure. A number of other boards (Idaho, Nebraska, South Dakota, Vermont and Washington) are also considering increasing their requirements to this level. All of the 50 states require graduation from an accredited chiropractic college for licensure. Additionally, most state boards require chiropractors to pass the three-part examination offered by the National Board of Chiropractic Examiners. The fourth part of the exam (discussed above) is being required by an increasing number of boards. Boards may also require special examinations to be successfully completed by practitioners relocating from another jurisdiction, or those under review for disciplinary or impairment reasons.\(^12\)

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Relationship with Physicians
Chiropactors practice within their scope of practice, and independently from physicians. The scope of practice for chiropactors varies from state to state. For example, Michigan has very restrictive scopes of practice for chiropactors while Oregon has expansive scopes of practice. Illinois allows chiropactors to have hospital privileges. When issues arise that are outside their scope, chiropactors refer patients to a physician. All states currently prohibit chiropactors from performing major surgery. Also, all 50 states do not grant any prescriptive authority to chiropactors.  

Some chiropactors view themselves as primary care physicians; these chiropactors treat non-neuromusculoskeletal conditions, including respiratory conditions and ear infections. According to one survey, more than 90% of chiropactors consider themselves as primary care practitioners and believe that they should be are the “primary care portal of entry” for health care for their patients.

In 1999, chiropactors achieved some success in terms of recognition when an HMO viewed chiropactors as primary care providers. HMO Illinois, the 650,000-member HMO run by Blue Cross and Blue Shield of Illinois, signed a contract with an independent practice group to provide chiropactors as primary care physicians. Some other managed care insurers, such as Chicago’s Alternative Medicine, Inc., are now allowing patients to choose chiropactors as their primary care doctors.

At least two states specifically allow chiropactors to conduct sports physicals. Other states likely allow this practice by default through vague scope of practice laws, thereby allowing chiropactors to conduct sports physicals unless this action is specifically forbidden.

Minnesota recognizes chiropactors as primary care providers for high school athletes. The Minnesota State High School League Sports Advisory Committee, a quasi-governmental body, decided that Minnesota high school athletes could have chiropactic physicians perform their physical examinations before they participate in high school sports activities.

In Florida, chiropactors and advanced registered nurse practitioners joined D.O.s and M.D.s in their ability to conduct a pre-participation physical medical evaluation for students who want to participate in school interscholastic athletics.

Reimbursement
Chiropactors believe that they are trained as primary care professionals and therefore seek status as primary care providers. They believe it is within their scope to perform physical exams, make a

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14 Chiroweb.com. Minnesota High Schools Recognize Chiropactors as Primary Providers, found at http://www.chiroweb.com/archives/09/14/17.html The Minnesota State High School League (MSHSL) Board of Directors created a Sports Medicine Advisory Committee composed of nine members: a general practice physician, a chiropactor, an exercise physiologist, a certified athletic trainer, a nutritionist/ endocrinologist, a registered physical therapist, a sports/education psychologist, and two permanent positions held by the major sports medicine health care providers for the Minnesota State High School League. Id.
provisional differential diagnosis, and order appropriate investigations.\textsuperscript{17} They also believe that they serve as cost-effective alternatives in the field of spinal manipulation. Therefore, chiropractors advocate for reimbursement from all types of payors.

Medicare reimburses chiropractors for their services; however, Medicaid currently reimburses chiropractors in only 26 states. Additionally, private insurance companies in every state except Utah, Vermont, Oregon, Hawaii, and Idaho reimburse chiropractors for their services.\textsuperscript{18} For example, Blue Cross/Blue Shield of Illinois regards chiropractors as primary care providers and reimburses them for their services. Arizona requires coverage for chiropractic services provided by network chiropractors. It allows subscribers to obtain at least 12 annual visits, unless the contract allows for additional visits. New Hampshire mandates payments must be equal and consistent with payments to other health care providers or physicians. The law states that there will be no restrictions on diagnostic or CPT codes and their application to chiropractic care. Washington requires carriers to provide enrollees with direct access to the participating chiropractor of the enrollee’s choice of covered chiropractic health care without the necessity of prior referral.

\textbf{Legislative Agenda}

In 2003, the word “chiropractor” was found in the subject heading of 100 pieces of state legislation.

One of the goals of the profession is to increase their scope of practice and to be regarded as primary care providers. Chiropractors also seek to lift restrictions on their practice of spinal manipulation. Another goal is to be reimbursed by all insurance companies including Medicaid, Medicare, and private insurance companies.

\textsuperscript{17} Canadian Medical Association Journal, \textit{Chiropractors Here to Stay} (Feb. 9, 1999) \url{http://www.cma.ca/cmaj/vol-160/issue-3/0312a.htm}

\textsuperscript{18} Medical College of Wisconsin, Non-Physician Clinician Summary
HOMEOPATHS

Introduction
Homeopathy is a holistic approach to medicine that takes a wider view of illness, causes of disease and how people express their diseases individually.¹ It is an alternative system of medicine based on the concept that all symptoms of ill health are expressions of disharmony within the whole person and that it is the patient who needs treatment, not the disease.² Homeopaths, who also refer to themselves as homeopathic physicians, use natural remedies to assist the body in its natural tendency to heal itself.³ Since homeopaths regard mental, emotional, physical and even spiritual illnesses as interconnected, remedies are prescribed on an individual basis, not merely for his/her disease, but for his/her whole state.⁴ Homeopathy is used to treat everything from acute fevers, sore throats and toothaches, to chronic illnesses such as arthritis, eczema, asthma, anxiety and insomnia.⁵

Homeopathy is based on three principles: the law of similars, the principle of minimum dose and prescription for the individual.⁶ According to the law of similars, frequently referred to as the phenomenon of "like cures like," a disease is cured by a medicine that creates symptoms in a healthy person similar to what the patient is experiencing.⁷ Since homeopaths are taught that two diseases cannot exist simultaneously in the body, they introduce an artificial disease into the body by giving a sick patient a small dose of something that would make a healthy person ill.⁸ This new, artificially created disease is thought to drive the original malady out of the body.⁹ The principle of minimum dose, also called the law of infinitesimals, means that the chemical quantity of the curative substance should be reduced until the least amount produces a curative response.¹⁰ By reducing the chemical nature, the side effects are limited and the remedy is gentler on the patient.¹¹ Finally, the prescription for the individual comes from the totality concept of a disease.¹² Since the symptoms are determined from examining a patient’s physical, emotional and mental conditions, the same disease is expressed differently in each patient. The totality of the symptoms, as expressed in the individual patient, guides the homeopath to the correct diagnosis and to the individual remedy.¹³

Samuel Hahnemann, a German physician and chemist who had become disillusioned with the conventional practice of medicine, founded the study of homeopathy in 1796. Hahnemann based his innovative medical treatment on the healing power of a good diet, exercise, fresh air, and minimum doses of natural medications. This approach to medicine was a radical concept at the time.

³ Id.
⁴ Id.
⁶ Homeopathic Medicine, holistic-online.com (last accessed Sept. 30, 2005).
⁷ Id.
⁸ Id.
⁹ Id.
¹¹ Id.
¹² Id.
¹³ Id.
Homeopathy was introduced in the United States in 1825, and the American Institute of Homeopathy was founded in 1844. Its popularity peaked in the late 19th century when 15 percent of American physicians were homeopaths. With the rise of modern clinical medicine near the turn of the century, homeopathy lost its popularity. However, the growth of alternative medicine since the early 1980s has renewed interest in homeopathy in the United States and the United Kingdom.

**Education**

Many practicing health professionals specialize in homeopathy. However, some students and practitioners of homeopathy are unlicensed in any health profession. While some homeopathic training programs require that students have one of the recognized health professional licenses, the majority of homeopathic training programs provide education to anyone who is interested. Courses that allow unlicensed practitioners to attend them generally require that students seek coursework in anatomy, physiology, and pathology at local colleges as prerequisites. Training for homeopath certification varies and includes, formal instruction, self-study, clinical work, video instruction, conferences and online instruction.\(^\text{14}\)

Homeopathic certification programs exist for osteopathic (D.O.s) and allopathic (M.D.) physicians, as well as for dentists, doctors of naturopath (N.D.) and doctors of chiropractic (D.C.). These programs can be covered in weekend sessions or there are courses available from 30 to 100 hours, with continuing education credits available.\(^\text{15}\)

Certification is available for anyone who completes a program in a recognized school of homeopathy. As of 2005, there are 24 homeopathic colleges or academies in the U.S.\(^\text{16}\)

Commonly, training programs in homeopathy are two to four-year post-graduate programs, usually consisting of extended weekend courses that meet monthly or every other month. There are a wide variety of programs for certification, differing in how the courses are taught, the emphasis of the education and pre-requisite requirements. Additionally, several of these programs are combined with other degrees, such as N.D.s.\(^\text{17}\)

There are also mail-order naturopathic programs in which homeopathy is a part; however, these programs are not highly respected, and graduates of these programs are not allowed to sit for licensing examinations for naturopaths in any state, nor are they able to obtain certification from leading homeopathic certification bodies.

**Licensure**

States regulate the practice of homeopathy. However, although the practice of medicine is regulated under law, anyone can use of homeopathic medicines for self care of acute ailments.\(^\text{18}\)


\(^\text{15}\) Id.


Three states, Arizona, Connecticut, and Nevada, have homeopathic licensing laws available for those homeopaths that are also licensed as physicians. Specifically, the state homeopathic licensing board must license D.O.s and M.D.s practicing homeopathy in Arizona and Nevada and M.D.s practicing homeopathy in Connecticut. Other states allow homeopathy within the scope of practice of other health professionals, such as acupuncturists, chiropractors, dentists, and nurse practitioners.

**Relationship with Physicians**
As mentioned above, many practicing health professionals specialize in homeopathy. The greatest number of health professionals who specialize in homeopathy in the Western world are physicians. Also, with the popularity of alternative medicine in the U.S. today, many American physicians are referring patients to homeopaths or prescribing homeopathic remedies.

In Europe, homeopaths are more widely recognized. In some European countries, homeopathy is taught at universities and is recognized as official medicine. In Germany, the government mandated that all medical students must learn the basics of homeopathy. Homeopathic remedies are to be found in almost all pharmacies in Europe. At least 40% of the British population receives a homeopathic prescription every year and more than one third of the French are treated with homeopathy. The British Royal family is well known for their use of homeopathy.

In the U.S., homeopaths without a prior medical degree are not allowed to prescribe medications. Since most homeopaths hold an osteopathic or medical degree, this is not a problem. However, with professions such as chiropractic and naturopathy, state laws govern whether these professionals who further specialize in homeopathy are able to prescribe.

Recently, healthcare professionals have appealed to the U.S. Department of Health and the National Institute of Health and Clinical Excellence to consider developing guidelines on the use of homeopathic remedies. This appeal came as a result of the publication of a research paper published in late August 2005 in the Lancet, which showed that homeopathic remedies are no better than a placebo. Currently, the U.S. Food and Drug Administration regulate the manufacture and sale of homeopathic medicines.

**Reimbursement**
Many insurance companies typically do not cover the services of homeopaths because of the uncertainty regarding homeopathy’s effectiveness. Therefore, many patients are required to pay out of pocket for homeopathic services desired. However, in some states homeopathic services are

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21 Id.
22 Id.
23 Id.
24 Id.
covered and reimbursed. In most of these states, where homeopathic services are covered, homeopaths are required to be osteopathic or allopathic physicians.

**Legislative Agenda**

In 2005, the word “homeopathic” was found in four pieces of state legislation, of which one passed.\(^28\) Utah H.B. 66 allows licensed naturopathic physicians to sell homeopathic remedies or dietary supplements from their offices.\(^29\)

The North American Society of Homeopaths have developed goals for its members, including legitimizing homeopathy as a profession, gaining acceptance of homeopathy in the healthcare system and establishing the credibility of registered homeopaths as professionals who contribute to the public healthcare system.\(^30\) Another goal is to receive reimbursement from insurance companies.

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\(^{28}\) Lexis-Nexis 2005 state legislation search.

\(^{29}\) UT HB 66 (2005).

NATUROPATHS

Introduction
Dr. Benedict Lust of Germany developed and gave naturopathy its name in the early 1900s.¹ By 1902, Lust had opened a Naturopathic sanatorium, begun a Naturopathic magazine and organized the Naturopathic Society of America, which was reorganized as the American Naturopathic Association (ANA) in 1919.² In this time, Dr. Lust earned degrees in osteopathy and medicine. When the American School of Naturopathy, which he had founded, gained its charter in 1905, it conferred on him the Doctor of Naturopathy degree.³

The profession is said to have experienced significant growth during the early years of the 20th century, only to be stunted with the advances made by modern medicine in and around World War II.⁴ During the 1970s, the “back to nature” culture of the American Pacific Northwest fostered a growth in interest of naturopathy, which has been resurrected recently with America’s interest in complimentary and alternative medicine.⁵

Naturopathy, sometimes referred to as naturopathic medicine, is based on the tenet that the body can naturally ward off disease through the cleansing and strengthening of the body.⁶ Naturopathic practice includes the following diagnostic and treatment modalities: utilization of all methods of clinical and laboratory diagnostic testing, including diagnostic radiology and other imaging techniques; nutritional medicine, dietetics and therapeutic fasting; medicines of mineral, animal and botanical origin; hygiene and public health measures; homeopathy; acupuncture; Chinese medicine; psychotherapy and counseling; minor surgery and naturopathic obstetrics (natural childbirth); naturopathic physical medicine including naturopathic manipulative therapies; the use of hydrotherapies, heat, cold, ultrasound, and therapeutic exercise.⁷ According to the American Association of Naturopathic Physicians (AANP), naturopaths are primary care and specialty doctors who address the underlying cause of disease through individualized natural therapies that integrate the healing powers of body, mind and spirit to stimulate the body to heal itself.⁸

The AANP reports that there are approximately 4000 naturopathic doctors (N.D.s) practicing in the U.S. today, and this number is growing by approximately 12% each year.⁹

¹ Natural Health, The European Healers, found at: http://www.naturalhealth.org/tradnaturo/history2.html#erop (last accessed on Oct. 7, 2005). Naturopathy has been defined by Natural Health as “a distinct system of non-invasive healthcare and health assessment in which neither surgery nor drugs are used, dependence being placed only on education, counseling, naturopathic modalities and natural substances, including without limitation, the use of foods, food extracts, vitamins, minerals, enzymes, digestive aids, botanical substances, topical natural substances, homeopathic preparations, air, water, heat, cold, sound, light, the physical modalities of magnetic therapy, naturopathic non-manipulative bodywork and exercise to help stimulate and maintain the individual's intrinsic self-healing processes.” (found at: http://www.naturalhealth.org/tradnaturo/; last accessed on Oct. 7, 2005).
³ Natural Health, Natural Healers and Education, found at: http://www.naturalhealth.org/tradnaturo/history3.html#edu (last accessed on Oct. 7, 2005).
⁵ AMA Council on Scientific Affairs, Report 12—Alternative Medicine
⁹ Id.
Education

Early practitioners of naturopathy learned by observing, through self-experimentation and by an apprenticeship.\(^{10}\) As the profession grew, some practitioners were educated in osteopathy and chiropractic, while others rebelled against conventional medical education and promoted intense independent study.\(^{11}\) The ANA split into two factions, the Eastern and Western, based on philosophical differences.\(^{12}\) Shortly before 1950, these two groups practice naturopathy in differing ways, starting with their education. Today, there is still a divide with two opposing national organizations representing naturopathic providers. While both use the term “naturopathic medicine” in their literature, AANP uses the term “physician” to describe its providers, while the American Naturopathic Medicine Association (ANMA) generally uses the older, “naturopath.”

With the division of the ANA, the differences in education philosophy became apparent. One half of the naturopaths, now represented by the AANP, wanted to “medicalize” naturopathy while the other half, now represented by the ANMA, wanted to keep it traditional.\(^{13}\) As each side developed their own philosophy, the differences in training and practice for naturopaths developed. According to the AANP, naturopathic medicine involves: performing surgery, prescribing medication, diagnosing and treating disease, and aspiring to become primary care physicians, even though N.D.s are not acknowledged by the American Osteopathic Association or the American Medical Association.\(^{14}\) Traditional naturopathy, however, concentrates on performing non-invasive procedures; providing education on herbs and other natural foods and counseling on nutrition and historic remedies and lifestyle.\(^{15}\) Another major divide is whether N.D.s should be licensed or certified.

AANP

In 1947, the Eastern ANA, which views naturopaths as primary care doctors of alternative medicine, pushed for the standardization of naturopath education and licensure.\(^{16}\) This view is represented by the AANP, which requires a naturopathic physician to attend a four-year graduate level naturopathic medical school and complete four years of training for licensure as a naturopathic doctor (N.D.).\(^{17}\) During graduate school, the student is educated in the basic sciences, like a D.O. or M.D., but also in holistic and non-toxic approaches to therapy.\(^{18}\) The training is in clinical nutrition, acupuncture, homeopathic medicine, botanical medicine, psychology and counseling. The N.D. may then be required to take a professional board exam to be licensed by a state as a primary care general practice.

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\(^{10}\) Natural Health, *Natural Healers and Education*, found at: http://www.naturalhealth.org/tradnaturo/history3.html#edu (last accessed on Oct. 7, 2005).

\(^{11}\) Id.

\(^{12}\) Id.

\(^{13}\) Natural Health, *The American Naturopathic Association*, found at: http://www.naturalhealth.org/tradnaturo/history3.html#ana (last access on Oct. 7, 2005). The Eastern faction is called the AANP (American Association of Naturopathic Physicians) and the Western faction is called the ANMA (American Naturopathic Medicine Association).

\(^{14}\) Id.

\(^{15}\) Id.

\(^{16}\) Id.

\(^{17}\) Id.

\(^{18}\) Id.
physician.\textsuperscript{19} For admission into most naturopathic medicine programs, students must have completed three years of pre-medical training and earned a Bachelor of Science degree.\textsuperscript{20}

Currently there are four colleges certified by the Council on Naturopathic Medical Education (CNME), and two colleges that have received candidacy status.\textsuperscript{21} Universities and colleges may choose to call the naturopathic degree they confer either the “Doctor of Naturopathy” (N.D.) or the “Doctor of Naturopathic Medicine” (N.D. or N.M.D.) degree, which are the same thing.\textsuperscript{22} Additionally, the CNME has certified two residency programs, which are one to two years in length.\textsuperscript{23}

During their education at CNME certified institutions, naturopathic medicine students learn to treat all aspects of family health and wellness, from pediatrics to geriatrics. The naturopathic curriculum uses the same foundation of basic science courses as osteopathic and allopathic programs to gain knowledge of holistic, non-toxic therapies and develop skills in diagnosis, disease prevention and wellness optimization.\textsuperscript{24} For at least the final two years of their medical program, students intern in clinical settings under the close supervision of licensed professional naturopaths.\textsuperscript{25}

**ANMA**

The ANMA, or the Western faction, offers two different paths of education towards certification. The first is a traditional route, which requires classroom time.\textsuperscript{26} The second is a non-traditional route that includes those learning institutions that offer courses or programs by mail, often called correspondence, or distance learning programs.\textsuperscript{27}

The American Naturopathic Certification Board (ANCB), formerly the American Naturopathic Medical Certification and Accreditation Board, is the only national certification board for traditional naturopathy in the United States. Through the ANCB, the ANMA recognizes two certifications. First, the Certified Traditional Naturopath (CTN) is a designation available only to those professionals who successfully complete the board certification examination in naturopathy with ANCB.\textsuperscript{28} A doctoral degree, either an N.D. or a Ph.D., is preferred for this certification.\textsuperscript{29} The second certification is the Certified Nutritional Wellness (CNW), which is available only to those professionals who successfully complete the board certification examination in nutrition with the ANCB.\textsuperscript{30} A Master's degree in nutrition is preferred for this certification.\textsuperscript{31} Both certifications

\textsuperscript{19} Id.  
\textsuperscript{24} *F.A.Q.s*, supra, note 22.  
\textsuperscript{25} Id.  
\textsuperscript{26} American Naturopathic Medical Accreditation Board, *Traditional versus Non-Traditional*, found at: http://www.anmab.org/pages/2/index.htm (last accessed on Oct. 7, 2005)  
\textsuperscript{27} Id.  
\textsuperscript{29} Id.  
\textsuperscript{31} Id.
designate that the individual has met the educational and professional requirements of becoming Board Certified. There are no state regulations for naturopaths who receive these certifications.

**Licensure**

Currently, 14 states, the District of Columbia, and the US territories of Puerto Rico and the US Virgin Islands have licensing laws for naturopathic doctors, although the scope of practice varies among them. In these states, naturopathic doctors are required to graduate from a four-year, residential naturopathic medical school and pass an extensive postdoctoral board examination, the Naturopathic Physician Licensing Examination (NPLEX), in order to receive a license. Naturopaths are not allowed to practice in every state. Florida repealed its N.D. licensure laws, but grandfathered in previously practicing naturopaths. South Carolina and Tennessee specifically prohibit the practice of naturopathy. The remaining states that do not license naturopaths allow them to practice to some extent and some states, while not licensing, do regulate the practice of naturopathy.

Only graduates from CNME accredited naturopathic medical schools are eligible to sit for the NPLEX, which is the standard examination used by all licensing jurisdictions for N.D.s in North America. It includes 5 basic science exams (anatomy, physiology, pathology, biochemistry, microbiology and immunology), which are taken after the first 2 years of school. The clinical science examinations are taken following graduation after the 4th year of school. They include: clinical and physical diagnosis, laboratory diagnosis and diagnostic imaging, botanical medicine, pharmacology, nutrition, physical medicine, homeopathy, minor surgery, psychology and lifestyle counseling, and emergency medicine. Individual jurisdictions may give additional examinations in jurisprudence and acupuncture. Recently, NPLEX announced the creation of a new organization: the North American Board of Naturopathic Examiners. This board will approve applicants to take the NPLEX and administer the exam. NPLEX will retain its role as the producer of a transnational board licensing examination; the NPLEX Board has been restructured so that exam development will be its sole focus.

The AANP advocates for state licensing of naturopathic physicians in all 50 states. However, as previously mentioned, the ANMA is against any formalized educational requirements for the practice of naturopathy and is against licensing for its practice.

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31 Exam Eligibility, note 28.
33 Id.
34 Florida: West's F.S.A. § 462.2001 (states that all naturopath licenses valid on Oct. 1, 1985 shall remain in effect).
35 South Carolina: Code 1976 § 40-31-10; and Tennessee: T. C. A. § 63-6-205
38 Id.
39 Id.
40 Id.
Relationship with Physician

The AANP claims that Naturopathic Physicians (N.D.s) are recognized as the medical experts in natural therapies and that they are sought out to provide expertise in the field of Complementary Medicine, including policy development, medical training, medical research and clinical applications of natural therapies.41

State laws addressing scope of practice have included prescriptive drug authority, minor surgery, naturopathic manipulation, obstetrics, gynecology, venipuncture, x-ray, and acupuncture as acceptable practices by naturopaths. However, not all states allow naturopaths to perform all of these procedures. Nine states allow limited prescriptive drug authority within naturopath scope of practice;42 six states allow performing minor surgery within naturopath scope of practice;43 fourteen states allow naturopathic manipulation within naturopath scope of practice;44 six states allow obstetrics within naturopath scope of practice;45 eight states allow gynecology naturopath scope of practice;46 ten states allow venipuncture within naturopath scope of practice;47 eight states allow performing x-rays within naturopath scope of practice;48 and, five states allow acupuncture within naturopath scope of practice.49

Reimbursement Issues

Since few Americans receive coverage for Naturopathic services through an insurer, most often visits to naturopaths are done without gatekeeper referral, and expenses are paid out-of-pocket. Insurance companies do not reimburse the majority of complementary and alternative medical treatments, although several health plans and HMOs have begun to expand coverage and include chiropractic and acupuncture. Medicare does not reimburse for services rendered by naturopaths.50 Medicaid will cover acupuncture and naturopathic services if the practitioner is licensed in the state where the service is provided and the service is considered a medical necessity.51

According to the AANP, Hawaii, Arizona, and Connecticut mandate insurance parity for naturopaths, while Montana requires its coverage if a plan provides coverage for primary care. Washington requires the coverage of naturopathic services.

Legislative Agenda

In 2005, the word “naturopathic” was found in the subject heading of 43 pieces of state legislation; the word “naturopath” was found in four bill subject headings.52

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41 The American Association of Naturopathic Physicians, Medical Collaboration, found at: http://www.naturopathic.org/naturopathic_medicine/medical_collaboration.aspx (last accessed on Oct. 7, 2005).
43 Arizona, Maine, Montana, Oregon, Utah, and Vermont.
49 Arizona, Kansas, Maine, New Hampshire, and Vermont.
51 Id.
52 Lexus-Nexis 2005 State Legislative search.
The AANP has determined goals for the profession, including increasing the visibility and understanding of naturopathic medicine among the public; increasing the number of jurisdictions licensing N.D.s; and having full integration into the national healthcare system. In the past, the AANP has also said that a goal is to receive reimbursement for services where naturopaths are licensed and to have licensing regulations in all 50 states by 2008.

New York AB 3183 and SB 2134 were introduced in the 2005 legislative session and would have provided for the licensure of naturopaths in New York, but the bills did not pass. In Florida, HB 695 and SB 2556, introduced in 2005, would allow for licensing of naturopaths in Florida again (the state repealed its licensure law in 1957). These bills did not pass.

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