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## Scope of Practice Issues in the Delivery of Pediatric Health Care

Committee on Pediatric Workforce

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American Academy of Pediatrics

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# AMERICAN ACADEMY OF PEDIATRICS

## POLICY STATEMENT

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children

Committee on Pediatric Workforce

### Scope of Practice Issues in the Delivery of Pediatric Health Care

**ABSTRACT.** In recent years, there has been an increase in the number of nonphysician pediatric clinicians and an expansion in their respective scopes of practice. This raises critical public policy and child health advocacy concerns. The American Academy of Pediatrics (AAP) believes that optimal pediatric health care depends on a team-based approach with coordination by a physician leader, preferably a pediatrician. The pediatrician is uniquely suited to manage, coordinate, and supervise the entire spectrum of pediatric care, from diagnosis through all stages of treatment, in all practice settings. The AAP recognizes the valuable contributions of nonphysician clinicians, including nurse practitioners and physician assistants, in delivering optimal pediatric care. The AAP also believes that nonphysician clinicians who provide health care services in underserved areas should be supported by consulting pediatricians and other physicians using technologies including telemedicine. Pediatricians should serve as advocates for optimal pediatric care in state legislatures, public policy forums, and the media and should pursue opportunities to resolve scope of practice conflicts outside state legislatures. The AAP affirms that as nonphysician clinicians seek to expand their scopes of practice as providers of pediatric care, standards of education, training, examination, regulation, and patient care are needed to ensure patient safety and quality health care for all infants, children, adolescents, and young adults.

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ABBREVIATIONS. AAP, American Academy of Pediatrics; CAM, complementary and alternative medicine; HPSA, Health Profession Shortage Area; FOPE II, Future of Pediatric Education II.

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#### INTRODUCTION

This policy statement is intended to serve as an overarching document that will consolidate some of the concepts in existing American Academy of Pediatrics (AAP) policy on pediatric care provided by nonphysician clinicians and, thereby, replace previous AAP policy on the role of the nonphysician provider.<sup>1</sup> AAP policy statements have generally addressed particular types of clinicians, practice settings, or types of care and have not articulated a global AAP position on pediatric care delivered by nonphysician clinicians.<sup>1-13</sup> The recommendations in this policy statement have been written to serve as an advocacy tool for the AAP as a whole as well as for individual chapters and mem-

bers to use with legislators, policy makers, and other stakeholders in deliberations on nonphysician scope of practice issues. To the extent possible, the text of the policy statement, from which the recommendations have been derived, proposes examples and strategies that address the practical aspects or implementation of the recommendations.

#### OVERVIEW OF THE EXPANSION OF NONPHYSICIAN SCOPE OF PRACTICE

In recent years, there has been a significant increase in the numbers and roles of nonphysician clinicians in the health care market. The AAP has monitored these trends in the delivery of care to pediatric patients by nonphysician clinicians, including but not limited to nurse practitioners, physician assistants, psychologists, pharmacists, massage therapists, physical therapists, occupational therapists, optometrists, acupuncturists, naturopaths, homeopaths, and chiropractors.

Some nonphysician clinicians are seeking expanded scopes of practice, including the right to provide types of care traditionally reserved for physicians. Nonphysician clinicians have succeeded in increasing their autonomy, scope of practice, prescriptive authority, and third-party reimbursement in most states. The AAP believes that as these nonphysician clinicians expand their roles, high standards of education, training, examination, regulation, and patient care must be adopted to protect patient safety and ensure effective quality health care for all infants, children, adolescents, and young adults.

#### THE PEDIATRIC HEALTH CARE TEAM

The provision of optimal pediatric care depends on a team-based approach to health care with coordination by a physician leader, preferably a pediatrician. In the team-based model of pediatric care, the pediatrician, or when no pediatrician is available, the physician, assumes overall responsibility for the care of the patient. As leader of the pediatric health care team, the pediatrician oversees and coordinates the delivery of care, and when appropriate, delegates patient care responsibilities to nurse practitioners, physician assistants, and other nonphysician clinicians within their legislated scopes of practice. This role includes supervising patient care delivered by

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nonphysicians. The pediatrician also determines when referral to a pediatric medical subspecialist, pediatric surgical specialist, or other physician is warranted. When patient care responsibilities must be shared by multiple providers, the pediatrician oversees the full range of health care services to ensure continuity of care within the child's medical home. The team-based model of pediatric care seeks to provide high-quality, cost-effective care by minimizing duplication of clinical effort and promoting the appropriate and timely use of all health care providers on the team.

The efficacy of this team-based approach in improving patient outcomes is widely accepted by physicians and nonphysician clinicians as well as the public. A variety of indicators, including an increasing pediatric population, the continuing specialization of medicine, and improvements in access to care, have predicted an increased need and demand for pediatric health care services in the near future. To respond to these changes, it will be necessary for the physician leader to coordinate the care delivered by physicians, nurse practitioners, physician assistants, and other nonphysician clinicians who provide care to children. The AAP acknowledges the complexities and difficulties inherent in this role but believes that the pediatrician's coordination of care is essential to ensuring the provision of optimal pediatric care.

#### THE PEDIATRICIAN AS LEADER OF THE PEDIATRIC HEALTH CARE TEAM

The AAP believes that pediatricians are optimally suited to serve as leaders of the pediatric health care team because of their unique ability to manage, coordinate, and supervise the entire spectrum of pediatric care, from diagnosis through all stages of treatment, in all practice settings. As the clinician most extensively educated in pediatric health care, the pediatrician has a pivotal role in delivering optimal pediatric care and providing a "medical home" for patients. According to the medical home concept, the pediatrician possesses the clinical skills, medical knowledge, and other competencies necessary to provide accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective pediatric care, 24 hours a day, 7 days a week.<sup>2</sup> Pediatricians are equipped to assess basic and complex health issues, involving areas as divergent as molecular genetics, toilet training, school problems, environmental health and safety, and the long-term care of children with chronic illness or disability. As part of this leadership role, the pediatrician should serve as a consultant for other members of the team who also play an important role in the care of infants, children, adolescents, and young adults. The AAP believes it is ill advised, even in underserved areas, to create a system of care that allows for the independent practice of nonphysician clinicians. Such health care delivery could result in a 2-tiered system that would compromise the quality of health care that should be available to all pediatric patients.<sup>2</sup> The role of the pediatrician consultant, therefore, is particularly important as a strategy to ensure the delivery of safe, competent, and appro-

priate pediatric care by providing support to nonphysician clinicians who practice in underserved, rural, or otherwise remote areas.

The AAP likewise supports the concept that pediatricians, because of their broad base of knowledge and skills, must supervise the pediatric health care delivered by nonphysician clinicians using telemedicine and other technologies, when applicable, to assist in the delivery of pediatric health care. According to *Black's Law Dictionary*, to supervise means "to have general oversight over, to superintend or to inspect."<sup>14</sup> The AAP also believes that the pediatrician should participate in the training and educational experiences of nonphysician clinicians to help ensure the competency of all team members. As an advocate for optimal pediatric care, the pediatrician should educate patients, their families, and their caregivers as well as policy makers about scope of practice issues and the use of complementary and alternative medicine (CAM).

#### PEDIATRIC NURSE PRACTITIONERS AND PHYSICIAN ASSISTANTS

Pediatric nurse practitioners and physician assistants frequently practice under the supervision of physicians. Table 1 illustrates the educational and practice differences among general pediatricians, pediatric subspecialists, pediatric nurse practitioners, and physician assistants.

Although studies highlight the ability of nurse practitioners and physician assistants to provide care comparable with that delivered by a physician (sometimes associated with a higher degree of patient satisfaction), these studies are limited by their focus on short-term outcomes for isolated medical problems managed by health care professionals working in a supervised environment in which they have ready access to consultation.<sup>15-17</sup> The ability of nonphysician clinicians to manage all levels and complexity of care independently has not been addressed by such studies, and until well-controlled studies demonstrate comparable outcomes for care rendered by all such clinicians, the AAP opposes independent practice, independent prescriptive authority, and reimbursement parity for these nonphysician clinicians.

To ensure the health and safety of all children, a process must be in place through which the credentialing of all individuals claiming to be competent to care for children is systematically examined. Currently, nurse practitioners and physician assistants must pass qualifying examinations developed by their certifying bodies; this is not the case, however, for all CAM practitioners. Consumers rely on government agencies to ensure certain standards of care. Legislators must base their decisions on knowledge, not on testimonials by a limited number of satisfied individuals.

The AAP concurs with the position of the American Academy of Physician Assistants that physician assistants should continue to practice medicine under the supervision of a physician, in recognition of the training and education of physician assistants and the importance of patient safety and strength of

**TABLE 1.** Comparison of Pediatricians, Pediatric Nurse Practitioners, and Physician Assistants

|                               | No. of Certified Providers                       | No. of Accredited Training Programs | Length of Training   | Educational Attainment  | Certifying Body  | Independent Practice or Supervision   | Prescriptive Authority                        |
|-------------------------------|--|-------------------------------------|--|---|--|---|---|
| General pediatricians         | 71 716*  | 208†                                | Baccalaureate degree (approximately 4 y), medical school (4 y), residency (3 y)                        | Doctor of Medicine (MD) or Doctor of Osteopathy (DO)  | American Board of Pediatrics<br>American Board of Osteopathic Pediatrics                     | Independent practice  | In all states                                 |
| Pediatric subspecialists      | 13 407*  | 970‡                                | Baccalaureate degree (approximately 4 y), medical school (4 y), residency (3 y), fellowship (≥2 y)     | Doctor of Medicine (MD) or Doctor of Osteopathy (DO)  | American Board of Pediatrics and other specialty boards for certain pediatric subspecialties | Independent practice  | In all states                                 |
| Pediatric nurse practitioners | 5850‡  | 67‡                                 | Baccalaureate degree (approximately 4 y), 2 y of advanced education and supervised clinical training   | Master's degree minimum, doctoral degree in nursing (PhD, DScN) common  | National Certification from Board of Pediatric Nurse Associates and Practitioners            | Variation by state  | Variation by state                            |
| Physician assistants          | 40 469§ (4% in general pediatric subspecialties) | 129§                                | Physician assistant program comprises 2 y in classroom and 25–27 mo clinical training in primary care¶ | 2 y of college courses in basic science and behavioral science as prerequisites to physician assistant training. Baccalaureate degree not required§ | Certification by the National Commission on the Certification of Physician Assistants        | Direct physician supervision in all states<br>Regulated in all states plus District of Columbia and Guam§ | 47 states plus District of Columbia and Guam§ |

\* Source: American Board of Pediatrics. ABP workforce data main menu 2000. Available at: <http://www.abp.org/STATS/WRKFRM/Menu1.htm>. Accessed March 19, 2002.

† Source: Accreditation Council for Graduate Medical Education. Available at: <http://www.acgme.org/adspublic>. Accessed March 19, 2002.

‡ Source: Dunn AM. 1997 NAPNAP Membership Survey. *J Pediatr Health Care*. 1998;12:203–210.

§ Source: American Academy of Physician Assistants. Facts at a glance. Available at: <http://www.aapa.org/glance.html>. Accessed March 19, 2002.

|| Source: American Academy of Physician Assistants. Physician assistants in pediatrics. Available at: <http://www.aapa.org/gandp/pediatrics.html>. Accessed March 19, 2002.

¶ Source: American Academy of Physician Assistants. The physician-PA team. Available at: <http://www.aapa.org/gandp/team.html>. Accessed March 19, 2002.

the physician assistant-physician relationship.<sup>18</sup> The AAP likewise opposes the independent practice of nurse practitioners, but endorses a collaborative and structured relationship, in keeping with their training and experience. Nurse practitioner education and training overlaps with and complements pediatric practice, and collaborative efforts serve to benefit child health.<sup>19</sup> The AAP realizes that nurse practitioners, physician assistants, and other non-physician pediatric clinicians may care for children in underserved areas where patients have limited or no access to a physician. However, the AAP, which dedicates its efforts and resources to attaining the optimal physical, mental, and social health and well-being for all infants, children, adolescents, and young adults, does not support independent practice for nurse practitioners, physician assistants, and other nonphysician pediatric clinicians. The issue of patient access and underserved areas defies an easy solution. This problem may be related to maldistribution of pediatricians in some parts of the country. As of June 2002, there are 3216 primary medical Health Profession Shortage Areas (HPSAs), needing to provide care for 57 212 915 persons. The number of physicians currently based in these HPSAs can accommodate only 22 million of these patients (Robert M. Politzer, ScD, Health Resources and Services Administration, written communication, August 14, 2002). Data suggest that the participation of midlevel practitioners in the health care of persons in underserved areas is less than anticipated, and that such practitioners relocate from underserved areas because of quality of life issues and a desire to be closer to the amenities of urban centers.<sup>20</sup>

Because of these issues, the AAP recognizes the pressing need to provide support for nonphysician clinicians in rural, remote, or otherwise underserved areas by ensuring access to a pediatrician-consultant who has the education, skills, and expertise to address the entire spectrum of pediatric health care issues.

#### USE OF TELEMEDICINE TO IMPROVE ACCESS TO AND QUALITY OF PEDIATRIC CARE

The AAP believes that telemedicine technologies will facilitate the pediatrician's vital role as the leader of the pediatric health care team. The US Department of Health and Human Services defines telemedicine as the use of electronic communication and information technologies to provide or support clinical care at a distance.<sup>21</sup> The Task Force on the Future of Pediatric Education II (FOPE II) affirmed that these technologies would allow the pediatrician to provide and support health care at a distance while monitoring and enhancing quality of care and improving communication with other members of the pediatric health care team.<sup>22</sup> Because telemedicine will most likely reshape the relationships among physicians, patients, and other members of the multidisciplinary care team, the pediatrician is optimally suited to oversee and ensure the proper use of telemedicine in the global management of patient care from diagnosis through all stages of treatment.

Recent technologic advances, such as the Internet,

the digitization of health care information, and wireless technologies, have demonstrated the great potential to increase access to health care services by circumventing the distance between clinicians and consultants. Implementation of telemedicine technologies, however, will require creative strategies to meet challenges in some areas of practice, such as appropriate criteria for supervision of nonphysician clinicians, reimbursement for telemedicine services, privacy of patient information, universal standards for telemedicine technologies, professional and medical liability, regulatory and jurisdictional issues related to multistate licensure of clinicians, and high costs of transmission of medical information.

Solutions to address difficulties in implementing telemedicine technologies have already assumed many forms and have involved a range of stakeholders. Research is being conducted, for example, to measure the impact of telemedicine on government expenditure and third-party payers, patient and clinician satisfaction with telemedicine,<sup>23</sup> and increased access to particular services through telemedicine. In California, Blue Cross is exploring the potential of telemedicine by establishing a statewide telemedicine network for its enrollees. To address high transmission costs, the Federal Communications Commission established in 1997 the not-for-profit Universal Service Administration Company to provide a discount on telecommunication transmission charges to rural health care professionals. The Federal Communications Commission has subsequently refined the Universal Service program to enhance and promote the provision of telemedicine services by eliminating limits on bandwidth and the number of services that can be supported by the program.<sup>21</sup>

#### COMPLEMENTARY AND ALTERNATIVE MEDICINE

In recent years, the role of CAM has also received increased attention. Controversy exists about the efficacy of many of the modalities incorporated under the heading of CAM. Although many definitions exist,<sup>24</sup> the National Center for Complementary and Alternative Medicine defines CAM as "those treatments and health care practices not taught widely in medical schools, not generally used in hospitals, and not usually reimbursed by medical insurance companies." According to the National Center for Complementary and Alternative Medicine, "some approaches are consistent with physiologic principles of Western medicine, while others constitute healing systems with a different origin. Although some therapies are far outside the realm of accepted Western medical theory and practice, others are becoming established in mainstream medicine."<sup>25</sup>

Although this policy statement will not address the treatments but rather the training of individuals who provide such treatments to children, it is important to note that little scientific evidence exists regarding the safety and efficacy of CAM therapies in children. Indeed, there have been few randomized, controlled, double-blinded clinical trials on the use of CAM therapies in the pediatric population. Table 2 summarizes information on 5 of the most common practitioners of CAM.

**TABLE 2.** Summary of 5 Major Providers of CAM

|                 | No. of Providers   | No. of Programs or Schools  | Length of Training   | Content of Training   | Pediatric-Specific Training   |
|-----------------|--|---|--|---|---|
| Chiropractic    | Approx 55 000–70 000 <sup>a</sup>  | 16 accredited in the US by the Council on Chiropractic Education Commission on Accreditation <sup>b</sup>   | 4 years chiropractic college (at least 4200 hours) <sup>b</sup>  | Years 1–2: biological and basic sciences, clinical disciplines. Years 3–4: supervised clinical training, often in college clinics | 120 hours leading to certification by the International Chiropractic Pediatric Association <sup>c</sup> |
| Acupuncture     | 10 000 licensed <sup>e</sup>   | 34 accredited by the Accreditation Commission for Acupuncture and Oriental Medicine <sup>f</sup>  | Minimum 1725 hours, 1000 of which must be didactic, and 500 clinical, for NCCAOM certification <sup>g</sup>  | Acupuncture, herbal therapies   | No  |
| Massage Therapy | Approx 160 000–220 000, <sup>h</sup> approximately 40 000 Nationally Certified in Therapeutic Massage and Bodywork (NCBTMB) <sup>i</sup> | 55 accredited in the US by the Commission on Massage Therapy Accreditation <sup>j</sup>   | Usually minimum of 500 hours <sup>k</sup>  | Massage therapy theory and technique, anatomy, physiology, business ethics, first aid, and CPR                                    | No  |
| Homeopathy      | Unknown  | No current national standard for homeopathic education. 19 institutions are currently accredited or undergoing review for accreditation by the Council for Homeopathic Education <sup>m</sup> | Varies, but a minimum of 500 hours (or a combination of shorter training, apprenticeship, and clinical experience) is required for CHC certification. <sup>n</sup> | Varies, but usually includes didactic and clinical components of classical homeopathy and basic sciences                          | No  |
| Naturopathy     | Approx 1500 <sup>o</sup>   | 4 (3 US, 1 Canada) accredited by the Council on Naturopathic Medical Education. Another US program is a candidate for accreditation <sup>p</sup>  | 3 years of college + 4 years of naturopathic study <sup>q</sup>  | Clinical nutrition, acupuncture, homeopathic medicine, botanical medicine, psychology, and counseling                             | No  |

NBCE indicates National Board of Chiropractic Examiners; NCCAOM, National Certification Commission for Acupuncture and Oriental Medicine; CPR, cardiopulmonary resuscitation.

<sup>a</sup> Source: American Chiropractic Association. Available at: <http://www.amerchiro.org>. Accessed March 19, 2002

<sup>b</sup> Source: Council on Chiropractic Education. Available at: <http://www.cce-usa.org>. Accessed March 19, 2002

<sup>c</sup> Source: International Chiropractic Pediatric Association. Available at: <http://www.4icpa.org>. Accessed March 19, 2002

<sup>d</sup> Source: National Board of Chiropractic Examiners. Available at: <http://www.nbce.org>. Accessed March 19, 2002

<sup>e</sup> Source: Cooper RA, Laud P, Dietrich CL. Current and projected workforce of nonphysician clinicians. *JAMA*. 1998;280:788–794.

<sup>f</sup> Source: American Academy of Medical Acupuncture. Accredited and candidate programs of the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM). Available at: <http://www.acaom.org/FAQ.html#b5>. Accessed March 19, 2002.

<sup>g</sup> Source: National Certification Commission for Acupuncture and Oriental Medicine. Available at: <http://www.nccaom.org>. Accessed March 19, 2002.

<sup>h</sup> Source: American Massage Therapy Association. Massage therapy: key questions and answers. Available at: <http://www.amtamassage.org/about/faq.htm>. Accessed March 19, 2002.

<sup>i</sup> Source: National Certification Board in Therapeutic Massage and Body Work. Consumer's guide to therapeutic massage and bodywork. Available at: [http://www.ncbtmb.com/consumers\\_guide.htm](http://www.ncbtmb.com/consumers_guide.htm). Accessed March 19, 2002.

| Educational Attainment  | Standardized Exams for Certification or Licensure  | Certifying Body   | Professional Associations   | State Licensure or Regulation  | Prescriptive Authority |
|---|--|---|---|--|------------------------|
| Doctor of Chiropractic (DC)   | NBCE Certificate of Attainment awarded after passing exam Parts I, II. Exams consist of NBCE Parts I, II, III, Physiotherapy, Special Purposes Exam for Chiropractic (SPEC), Part IV Practical Examination <sup>d</sup>  | National Board of Chiropractic Examiners  | American Chiropractic Association, International Chiropractic Association, International Chiropractic Pediatric Association | 50 states, see Federation of Chiropractic Licensing Boards <sup>a</sup>                          | No                     |
| Varies, master's degrees in acupuncture and doctoral degrees in oriental medicine (OMD) | NCCAOM Certification in Acupuncture is basis for licensure. In some states, the NCCAOM certification in Chinese Herbology, as well as other qualifications, is also required. Diplomates use the designation DiplAc (NCCAOM) <sup>e</sup>                        | National Certification Commission for Acupuncture and Oriental Medicine   | American Association of Oriental Medicine, American Academy of Medical Acupuncture  | 39 states and District of Columbia <sup>g</sup>  | No                     |
| No terminal educational degree, such as a doctorate                                     | National certification exam qualifies diplomates to use the designation, NCTMB. In most of the 29 states, this exam is a basis for licensure. In the remaining states, a state exam is required. <sup>l</sup>  | National Certification Board for Therapeutic Massage and Bodywork   | American Massage Therapy Association  | 30 states and District of Columbia <sup>l</sup>  | No                     |
| No terminal educational degree, such as a doctorate                                     | A variety of exams and certifications by professional associations exist, including the designation, Certified Classical Homeopath (CHC), granted by the Council for Homeopathic Certification. These are not, however, a basis for state licensure <sup>n</sup> | Council for Homeopathic Certification, National Board of Homeopathic Examiners, American Board of Homeotherapeutics | North American Society of Homeopaths, Homeopathic Academy of Naturopathic Physicians  | 3 (homeopathic license contingent on holding current medical license in that state) <sup>n</sup> | No                     |
| Doctor of Naturopathy (ND)  | Naturopathic Physicians Licensing Exam   | North American Board of Naturopathic Examiners  | American Association of Naturopathic Physicians   | 11 states and Puerto Rico <sup>q</sup>   | No                     |

<sup>j</sup> Source: Commission on Massage Therapy Accreditation. Massage education institutions and programs. Available at: <http://www.comta.org/trainprog.htm>. Accessed March 19, 2002.

<sup>k</sup> Source: American Massage Therapy Association. Starting a career in massage therapy: what you need to know. Available at: <http://www.amtamassage.org/becometherapist/starting.htm>. Accessed March 19, 2002.

<sup>l</sup> Source: American Massage Therapy Association. States with massage practice laws. Available at: <http://www.amtamassage.org/about/lawstate.htm>. Accessed March 19, 2002.

<sup>m</sup> Source: National Center for Homeopathy. Education directory. Available at: <http://www.homeopathic.org/edudir.htm>. Accessed March 19, 2002.

<sup>n</sup> Source: Council for Homeopathic Education. Available at: <http://www.homeopathicdirectory.com/old/index.htm>. Accessed March 19, 2002.

<sup>o</sup> Source: The American Association of Naturopathic Physicians. About AANP. Available at: [http://www.naturopathic.org/about\\_aanp.htm](http://www.naturopathic.org/about_aanp.htm). Accessed March 19, 2002.

<sup>p</sup> Source: The American Association of Naturopathic Physicians. Accredited schools. Available at: [http://www.naturopathic.org/education/accredited\\_schools.htm](http://www.naturopathic.org/education/accredited_schools.htm). Accessed March 19, 2002.

<sup>q</sup> Source: The American Association of Naturopathic Physicians. Frequently asked questions (FAQ). Available at: [http://www.naturopathic.org/asked\\_questions.htm](http://www.naturopathic.org/asked_questions.htm). Accessed March 19, 2002.

Children may receive care from CAM practitioners without it being revealed to their pediatrician. A 1997 study reported that the percentage of American adults using CAM increased from 34% in 1990 to 42% in 1997.<sup>26</sup> The estimate for CAM use by the general pediatric population is lower, ranging from approximately 11% in 1994 to 20% in 1999.<sup>27,28</sup> The rate for children with chronic or serious illness, however, is much higher, varying according to age, background, and access to services from 30% to more than 70%, according to 1998 data.<sup>29</sup> These figures raise serious concerns. The pediatrician cannot be responsible for overseeing the actions of CAM providers, but can take a proactive role in asking patients and families about their use of CAM therapies. As advocates for their patients, pediatricians need to advise patients and their parents that the interactions between some CAM therapies and conventional medical treatments can cause complications and even death. Many people are unaware of this danger and view CAM therapies as natural and, therefore, safe, and so often do not report their use of CAM to their physicians.<sup>30,31</sup> The AAP has recognized the importance of this issue and has published a series of recommendations on how to counsel families about CAM use for children with chronic illness or disability.<sup>24</sup> The pediatric community has questioned the ability of CAM practitioners to identify serious or complex medical conditions that require referral to a physician for medical treatment.<sup>32</sup> In addition, the opposition of some CAM practitioners to immunizations negatively affects the health and safety of children in their care.

No uniform standards exist across the country for scope of pediatric practice of chiropractors, naturopaths, and other CAM practitioners. As summarized in Table 2, pediatric training and experience are not specifically outlined or regulated. Studies documenting improved outcomes and efficacy of treatments in pediatric practice for CAM practitioners do not exist. In view of this lack of national standards for pediatric care by CAM practitioners, the absence of studies documenting that the quality of health care for children provided by these practitioners is comparable with that provided by conventional clinicians, and the more extensive training and education of pediatricians, the AAP has concerns about the provision of health care services to pediatric patients by CAM practitioners.

#### PROFESSIONAL AND MEDICAL LIABILITY ISSUES

The expansion of the scope of practice of nonphysicians, including CAM practitioners, has created new challenges for physicians in addressing professional and medical liability issues in all specialties. Specific areas of risk for physicians supervising nonphysician clinicians are improper delegation of authority, vicarious liability for medical care provided by nonphysician clinicians, and liability for nonmedical acts committed by nonphysician clinicians. When delegating authority to nonphysician clinicians under their supervision, physicians should consider the legality of the delegation, the proper

method of delegation, and their oversight responsibilities for the delegated duties.

It may be necessary to remind legislators and health policy makers that a physician's ability to delegate authority is governed by statutory and contractual limitations. Moreover, health care entities, such as hospitals or managed care organizations, may not authorize the delegation of more authority than is permitted by state laws, but they may impose limitations on the delegation of authority that are more restrictive than are state laws. These policies also may be admissible in a medical malpractice lawsuit as evidence of the standard of care. Physicians violating such policies may risk loss of employment or revocation of privileges. Physicians and health care entities must, therefore, be knowledgeable about the terms of these statutes and should seek advice from a qualified attorney.

For nonphysician clinicians who choose to practice independently, there has to be exclusive professional responsibility for the care they provide and adequate malpractice insurance to allow appropriate financial remedy for adverse settlements or decisions. States that license nonphysician clinicians should, therefore, require that they abide by the same rules regarding malpractice insurance as do physicians. Because physicians are held accountable for clinicians acting under their supervision, a pediatrician should obtain legal counsel to identify any potential professional or medical liability issues before establishing a pediatric health care team, especially a team that includes CAM practitioners.

Because the integration of CAM with traditional medicine is relatively new, it follows that malpractice law involving CAM practitioners is relatively immature. At this time, very little is known about malpractice risks of CAM for independent practitioners or for allopathic and osteopathic physicians using CAM along with conventional treatment. The literature contains some articles in which the theoretic liability for referrals to CAM practitioners is extrapolated from what is known about liability for referrals to traditional nonphysician clinicians.<sup>33-35</sup> However, the appropriateness of this assumption is unfounded. The complexity of these and many other professional and medical liability issues demonstrates the need for pediatricians, as advocates for their patients, to educate legislators and health policy makers about professional and medical liability issues and their implications for patient safety.

#### COLLEGIAL RESOLUTION OF SCOPE OF PRACTICE ISSUES

Scope of practice legislation falls under the jurisdiction of individual states. State legislatures are, therefore, the loci of deliberations on these issues. Legislatures must evaluate the evidence and testimony of a variety of stakeholders, including physicians and nonphysician clinicians, when considering changes to scope of practice legislation. These competing political agendas and perspectives often generate highly charged, polemical, and even acrimonious debates that damage professional relationships between physicians and nonphysician clinicians.

Some states, however, have attempted to shift these deliberations from the state legislature to an alternative arena. The goal of this shift is to promote collegial relationships between physicians and nonphysician clinicians that focus on serving the best interests of the public. For example, Texas has succeeded in diffusing the political tensions of these debates since 1995 through its Ad Hoc Committee on Collaborative Practice. The committee comprises physicians and nonphysician clinicians, including nurse practitioners and physician assistants. In Texas's legislative sessions of 1997, 1999, and 2001, the committee's work obviated the need for scope of practice battles in the state legislature (A. Gilchrist, MD, Texas Medical Association, oral communication, September 10, 2001). The AAP supports and encourages such nonlegislative forums to resolve scope of practice issues and commends efforts to promote collegial, productive relationships between physicians and nonphysician clinicians in the interest of optimal patient care.

When the resolution of scope of practice issues outside of the legislative arena is not possible, stakeholders with common positions on the issues should explore opportunities for collaboration. A number of strategies can be used to pursue legislative action. First, national medical and specialty societies can coordinate their efforts on nonphysician scope of practice issues when a nationally organized campaign is appropriate. Because most scope of practice conflicts occur at the state level, however, it is important for AAP chapters, state medical societies, and other state-level entities to collaborate. In these efforts, state-level groups should make use of resources, particularly policy statements developed by national medical and specialty societies, for their advocacy activities at the state level. Such activities require physicians who are knowledgeable of law-making and policy-making processes and who have the skills necessary to be effective advocates in legislative deliberations. For this reason, AAP chapters should encourage, recruit, and train their members to serve as advocates of optimal pediatric health care in state-level policy initiatives on nonphysician scope of practice issues. This advocacy role should be fulfilled through active participation in policy debates conducted in state legislatures, the media, community-based programs, and other public forums.

### CONCLUSION

In recent years, there has been an increase in the number of nonphysician clinicians in the health care market, as well as an increased interest in an expansion of their roles, including autonomy, prescriptive authority, and third-party reimbursement. Professional and medical liability issues are also coming to the fore of the scope of practice debate. The education and evaluation of health care professionals is quite variable. Pediatricians are the most extensively educated providers of pediatric care. Nurse practitioners and physician assistants complete shorter but well-defined educational programs and examinations. Other clinicians may participate in only abbreviated educational experiences in pediatric care.

Optimal pediatric care is best rendered using a team-based approach with a physician, preferably a pediatrician, as leader. The pediatrician can coordinate and direct patient care and assist nonphysician clinicians, even when these clinicians are practicing in rural or remote areas. The use of advanced telemedicine technologies promotes quality health care for children who would otherwise be underserved by the current health care system. Communication between physicians and nonphysician clinicians is essential to ensure appropriate health care and minimize the risk of harmful interactions between different medical treatments. Because legislation regarding scope of practice falls under the jurisdiction of individual states, pediatricians must be knowledgeable about law-making and policy-making processes and serve as advocates for quality health care for all infants, children, adolescents, and young adults.

The AAP affirms the following policy recommendations:

1. A physician, preferably a pediatrician, should serve as the leader of the pediatric health care team. This leadership role is based on the pediatrician's ability to manage, coordinate, and supervise the entire spectrum of pediatric care, from diagnosis through all stages of treatment and in all practice settings. This role involves coordinating and supervising the care provided by other pediatric clinicians, including care delivered via telemedicine technologies.
2. Pediatricians, as leaders of pediatric health care teams, must embrace their responsibility to educate patients, their families, and their caregivers; health care purchasers; policy makers; the media; and the public about scope of practice issues and the appropriateness of different care options, including the use of CAM. Pediatricians should also participate, as appropriate, in the training and educational experiences of nonphysician clinicians.
3. Comparable standards of scientific evidence should be applied to assess the outcome in all areas of clinical practice delivered by all providers of pediatric care.
4. Telemedicine technologies should be implemented as one means of improving the quality of pediatric care available to children who otherwise have limited access to health care. The safety, quality, and appropriateness of this care should be ensured by addressing professional and medical liability issues and establishing technical standards and guidelines and clinical practice protocols for pediatric care provided through telemedicine technologies.
5. Pediatricians should take a proactive role in asking patients and families about their use of CAM therapies. Pediatricians cannot be responsible for overseeing the actions of CAM providers. Pediatricians can, however, advise patients and their families about the use of CAM and that interactions between some CAM therapies and conventional medical treatments can cause complications and even death.

6. Nonphysician clinicians acting independently of physicians should be held to the equivalent degree of professional and medical liability as is a physician. States that license nonphysician clinicians should, therefore, require that they abide by the same rules regarding malpractice insurance as do physicians. Because physicians are held accountable for clinicians acting under their supervision, a pediatrician should obtain legal counsel to identify any potential professional and medical liability issues before establishing a pediatric health care team, especially a team that includes CAM practitioners.
7. To promote the highest standards of care in each state, scope of practice issues should be resolved through nonlegislative forums (like those on the model of the Texas Ad Hoc Committee on Collaborative Practice), which include physicians and nonphysician clinicians, such as nurse practitioners and physician assistants. AAP chapters are encouraged to take a leadership role in establishing such forums in their respective states.
8. AAP chapters and state medical and specialty societies, as well as national medical and specialty societies, should be proactive in legislative advocacy and should partner in informing legislators, health care purchasers, the media, and the public about the differences in the education, skills, and knowledge of various health care professionals. Legislative advocacy includes opposing legislation to expand the scope of practice of nonphysician clinicians, particularly independent practice, independent prescriptive authority, and reimbursement parity.

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