



# Scope of Practice Laws in Health Care: Rethinking the Role of Nurse Practitioners

## Overview

Nurse practitioners (NPs) are registered nurses with advanced clinical training who serve as primary care providers in a broad range of acute and outpatient settings. The profession came into being in the 1960s as a response to a nationwide physician shortage. Today, there are an estimated 145,000 NPs working in the United States.

NPs are valuable members of the health care delivery system, practicing in areas as diverse as pediatrics, internal medicine, anesthetics, geriatrics, and obstetrics. NPs conduct physical exams, make diagnoses and develop treatment plans, order and interpret lab tests and X-rays, prescribe medication and durable medical

equipment, provide counseling and education, and refer patients to other providers.

But while NPs, on a nationwide basis, collectively perform all the medical services cited above, there are dramatic differences in the types of services that NPs in any given state can deliver to their patients.

The Center for the Health Professions at the University of California, San Francisco has conducted a state-by-state survey of NP scopes of practice, the legal framework that defines the services NPs may perform and how they must perform them. This survey, completed in September 2007 and funded by the California HealthCare Foundation, indicates that there

## Key Findings of the Survey

- Nurse practitioners (NPs) are registered nurses with advanced clinical training. They serve as primary care providers in a broad range of acute and outpatient settings, such as pediatrics, internal medicine, anesthetics, geriatrics, and obstetrics.
- NPs began to practice in the 1960s, in response to a nationwide physician shortage. Today, there are an estimated 145,000 NPs nationwide, and 13,649 in California.
- The 50 states and the District of Columbia have individual control over the laws that govern NP scope of practice. This has resulted in wide state-by-state differences in the types of services that NPs can deliver to their patients.
- These differences in scope of practice may slow the uniform expansion of NP services, prohibit NPs from providing the care for which they are trained, and hamper the use of NPs in improving access and controlling health care costs.
- California is roughly in the middle, nationwide, in NP practice autonomy and independence. NPs must collaborate with physicians and develop joint, written protocols that cover all major elements of the NP's practice.
- California NPs may diagnose, order tests and durable medical equipment, refer patients, and "furnish" or "order" drugs, but only according to that protocol. There is a cap of four drug-prescribing NPs per physician.
- Six states—Alaska, Arizona, New Hampshire, New Mexico, Oregon, and Washington—have NP scopes of practice that are among the nation's most expansive. In these states, NPs practice autonomously, with no physician oversight, and prescribe drugs without physician involvement.

is substantial variation in the relative autonomy and independence with which NPs are permitted to deliver medical services.

This issue brief examines NP scopes of practice among the states, including California; provides an overview of recent legislative efforts in California to modify those rules; and discusses opportunities and barriers to more fully exploiting NP training and expertise.

The full UCSF survey is available online at [http://futurehealth.ucsf.edu/pdf\\_files/NP%20Scopes%20discussion%20Fall%202007%20121807.pdf](http://futurehealth.ucsf.edu/pdf_files/NP%20Scopes%20discussion%20Fall%202007%20121807.pdf).

Federal law defers to the 50 states and District of Columbia on the laws that govern NPs. Not surprisingly, this has resulted in a diverse national patchwork of rules on NP practice protocols.

Most states require NPs to practice in collaboration with a physician, or under a physician's direct supervision, while

a handful permit NPs to practice independently without any physician involvement whatsoever. But regardless of practice structure, there also exist large state-by-state differences in NP decision-making authority.

For example, NPs in all 50 states and the District of Columbia may prescribe drugs, either on their own or under physician supervision, but not all states allow NPs to prescribe the same types of drugs. NPs may make independent diagnoses in some states, but not others; and NPs in some states—but not others—may refer patients directly to other providers. States vary in the number of NPs that may affiliate with a single physician.

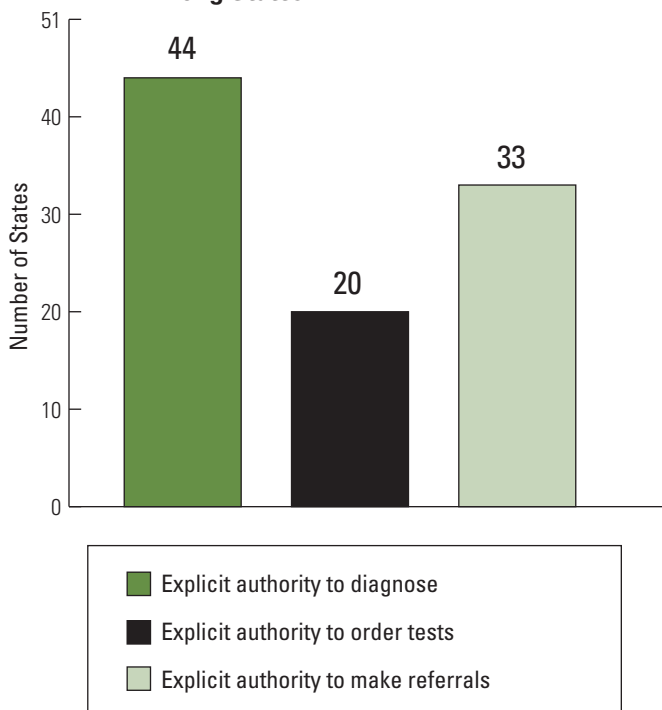
State laws regarding reimbursement also differ, as some states allow NPs to bill payers directly for all services (or certain specified services), while others require billing to come from the physicians with whom NPs affiliate.

California was a relatively early adopter of the nurse practitioner concept, establishing its first NP training program in 1972. Comparatively speaking, California falls roughly in the midpoint of practice autonomy and independence. NPs must collaborate with physicians, with a cap of four drug-prescribing NPs per physician; develop joint, written protocols that cover all major elements of the NP's practice; and may bill directly for some, but not all, services they provide.

Nationally, the UCSF survey found that inconsistencies in NP scopes of practice among states may impede the uniform expansion of NP services, prohibit NPs from providing in full measure the medical care for which they are trained, and inhibit the robust use of NPs in helping alleviate shortages of primary care providers.

In California, policymakers have long wrestled with the issue of access to medical care, a function of the state's unequal geographic distribution of physicians and their reluctance to accept patients with Medi-Cal or HMO insurance coverage. Likewise, in an era of shrinking

**Figure 1: Practice Authorities for Nurse Practitioners Among States**



Note: Numbers are for 50 states and District of Columbia.

federal funding and widening state budget deficits, policymakers are keenly interested in health care cost containment, and NPs may be an untapped resource for cost-effective delivery of medical services.

California's recent bid to enact comprehensive health care reform and expand health care coverage may broaden state rules on NP scope of practice. Legislation still pending in January could allow NPs to prescribe medications without physician oversight, make overall expansions to NP practice authority, and convene a task force to recommend revisions to state NP practice policies.

## The National Perspective

### Training, Certification, and Regulation

NPs in the United States must complete, at a minimum, a three-month specialized training program. The vast majority of states require NPs to have training beyond that minimum. According to a 2004 survey by the U.S. Department of Health & Human Services, more than 65 percent of NPs have a master's degree, almost 11 percent have a post-master's certificate in NP preparation, and more than 74 percent are certified by a national organization in an advanced practice nursing specialty.<sup>1</sup>

As with nearly all aspects of NP training and practice, individual states determine training, education, and certification standards. NPs must earn master's degrees in 27 states. Moreover, 42 states require NPs to be nationally certified.

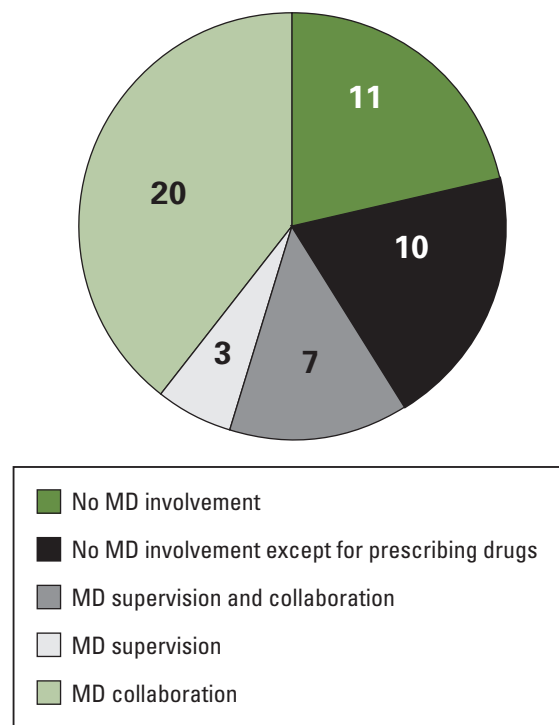
In 17 states, state nursing and medical boards have joint rule-making authority over NP scope of practice; specifics of this joint authority vary from state to state. For example, the Georgia Board of Medical Examiners promulgates rules and regulations for practice protocol requirements between NPs and physicians, while the boards of nursing and medicine in five states share rule-making authority over NP drug prescription privileges.

## Physician Affiliation

The rules under which NPs and physicians interact contain broad and, at times, finely nuanced variations.<sup>2</sup> Currently, ten states and the District of Columbia allow NPs to practice independently with no physician oversight or collaboration. Another ten states allow NPs to practice independently, except when prescribing drugs, an action that requires physician approval or collaboration. At the other end of the spectrum, ten states require direct physician supervision of NPs.

Twenty-seven states require varying degrees of collaboration between NPs and physicians; seven of those states also require physician supervision in addition to collaboration. Moreover, NPs in the 21 states that require physician supervision or collaboration must adhere to a written practice protocol developed jointly with the physician. In addition, there is substantive variation nationwide in the number of NPs who may affiliate with a single physician.

**Figure 2: Oversight Requirements for Nurse Practitioners Among States**



Note: Totals add up to 51 (50 states and District of Columbia).

Finally, some states require differing levels of physician oversight, depending on location (such as inner cities or rural areas), practice setting (nursing homes, hospitals, etc.), and specific medical service.

### Patient Diagnoses, Tests, and Referrals

The ability of NPs to diagnose and treat patients is another area with substantial divergence in practice scope and independence.

In 44 states, NPs have explicit legal authority to diagnose patients, under a variety of physician affiliation mandates. However, seven of those states (Delaware, Kansas, Kentucky, Maine, Missouri, North Dakota, and New York) distinguish between “medical” diagnoses, which NPs may not make, and “nursing” diagnoses, which NPs may make.

Twenty states permit NPs to order tests, and 33 states allow NPs to refer patients to other providers.

In those states that do not allow NPs to conduct these medical activities independently, NPs may diagnose, order tests, and make referrals only under their state’s physician affiliation guidelines.

### Prescriptions

NPs first began to get authority from state legislatures to prescribe formulary medication and controlled substances in the mid-1970s. In 2006, with Georgia’s approval of enabling legislation, NPs in all 50 states and the District of Columbia now have the ability to prescribe drugs.<sup>3</sup>

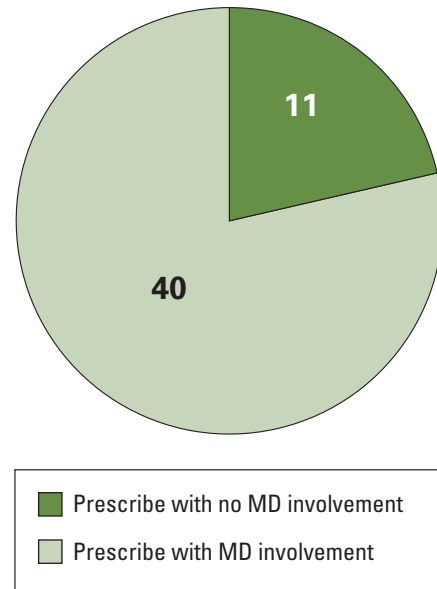
There are five categories of controlled substances, called “schedules,” which are grouped according to whether they have an accepted medical use in the United States, their potential for abuse, and the likelihood of dependence when abused. Schedule I drugs have no medical use and are illegal. Drugs in Schedules II through V have medical value for use as prescription medication.

As in other practice areas, state laws differ widely in terms of NP authority to prescribe controlled substances independently, the schedules of drugs NPs may prescribe, and the duration of those prescriptions.

Ten states and the District of Columbia allow NPs to prescribe all non-Schedule I drugs independently, with no physician oversight. Another 40 states allow NPs to prescribe in collaboration with a physician. Thirty-four of those states require NPs to maintain a written protocol with a physician.

Forty-seven states and the District of Columbia allow NPs to prescribe controlled substances; Alabama, Florida, and Missouri prohibit all such prescriptions. NPs in Arkansas, Illinois, Oklahoma, South Carolina, and West Virginia may prescribe only Schedules III-V drugs. Most other states permit NPs to prescribe drugs in Schedules II-V.

**Figure 3: Nurse Practitioner Drug Prescribing Authority Among States**



Note: Totals add up to 51 (50 states and District of Columbia).

In an example of variations in the duration of prescriptions, Pennsylvania limits NP prescriptions of Schedule II drugs, which generally have the highest potential for abuse and dependence, to 72-hour supplies; prescriptions in Schedules III-IV may go up to 30 days; and prescriptions of Schedule V drugs have no time limit. In South Dakota, on the other hand, NPs may issue 30-day prescriptions of Schedule II drugs.

## The California Landscape

California embraced the role of the nurse practitioner fairly quickly. The University of California, Los Angeles, established the state's first NP training program in 1972, seven years after the nation's inaugural NP program got under way in Colorado; in 1978, the California Board of Registered Nursing initiated voluntary NP certification.

As of 2006, there were 13,649 certified NPs practicing statewide. Twenty-three universities in California now offer NP programs. The California Office of Statewide Health Planning and Development provides funding to 11 NP programs under the Song-Brown Health Care Workforce Training Act, which encourages graduates to practice in medically underserved areas.<sup>4</sup>

When viewed against the national landscape, California is in the middle with regard to NP practice autonomy. Major components of California's NP scope of practice include:<sup>5</sup>

- NPs must complete Board of Registered Nursing-approved training and be certified by a state or national organization whose standards are acceptable to the board;
- Beginning in January 2008, a master's degree in nursing is now required for all NP applicants;
- NPs must practice in collaboration with physicians under a written, jointly-developed practice protocol;
- Individual physicians may collaborate with no more than four drug-prescribing NPs;

- NPs may diagnose, order tests and durable medical equipment, and refer patients to other providers according to their respective protocol;
- NPs may “furnish” or “order” drugs, including Schedules II-V controlled substances, under a written protocol developed with a collaborating physician;
- NPs may be reimbursed directly by third-party payers for certain specific services; and
- NP practice is governed solely by the California Board of Registered Nursing.

## Recent California Legislation

Between 2002 and 2006, California enacted a series of statutes that incrementally expanded the scope of practice for NPs. This included items such as certification of applicants for disabled parking placards, physical exams for school bus drivers, and a loosening of restrictions on billing and prescription documentation.

In contrast, the 2007-08 legislative session includes pending legislation that could substantially expand NPs' scope of practice in California. Further, compromise health care reform legislation authored by Assembly Speaker Fabian Núñez would establish a task force to recommend revisions to the state's NP scope of practice.

The legislative proposals include:

- SBX1 24, by Sen. Roy Ashburn, R-Bakersfield, which would allow NPs to prescribe drugs and durable medical goods without physician oversight, broaden NP practice authorities in long-term care facilities, and permit NPs to receive payment for emergency medical services from county physician services accounts;
- ABX1 1, by Assembly Speaker Núñez, which would establish the Task Force on Nurse Practitioner Scope of Practice, with recommendations to be delivered to the governor and the legislature by June 30, 2009;
- AB 1436, by Assemblymember Ed Hernandez, D-West Covina, which was amended Jan. 7 to require

NP certification by a nationally recognized body approved by the state Board of Registered Nursing, and allow a doctoral nursing degree as an educational qualification; and

- AB 1643, by Assemblymember Roger Niello, D-Sacramento, which, like SBX1 24, would have deleted the current prohibition against a physician overseeing more than four drug-prescribing NPs. Niello is not pursuing AB 1643, which stalled in the Assembly Business and Professions Committee in April 2007, and instead has become a co-author of AB 1436.

### California's NP Scope of Practice: Policy, Politics, and Opportunity

NP scopes of practice have broadened steadily over the past four decades, but a system in which protocols differ dramatically from state to state can constrain the uniform expansion of NP services. This becomes particularly clear when viewed through the prism of states that have implemented broad scopes of practice.

Six states (Alaska, Arizona, New Hampshire, New Mexico, Oregon, and Washington) have some of the nation's most expansive NP scopes of practice. In these states, NPs practice autonomously, without physician oversight, and may prescribe drugs without physician involvement.

Studies have found that NPs deliver quality of care that, in general, is comparable to that of physicians, and that physicians give positive, if guarded, evaluations to NPs and other non-physician providers for their medical proficiency and contributions to physician practices.

For example, a 1986 U.S. Congressional analysis of ten separate outcomes studies concluded that the quality of care provided by NPs and physicians was equivalent.<sup>6</sup> A 1998 study from the Netherlands likewise found that physicians and NPs, practice nurses, clinical nurse

specialists, or advanced practice nurses delivered care of roughly equal quality, and further, that the nursing categories posted higher patient satisfaction ratings.<sup>7</sup> Similarly, a 2001 study at a Midwest academic teaching hospital consistently found no material difference in the quality of care provided by NPs and physician residents.<sup>8</sup>

A 2003 survey in South Carolina of rural and urban physician perceptions of NPs, physician assistants, and certified nurse midwives found that respondents believed non-physician providers possess the necessary skills and knowledge to provide primary care to patients; are an asset to physician practices; free physicians to handle more critically ill patients; and increase revenue for physician practices. However, respondents also indicated that the use of non-physician providers adds to their administrative duties and raises the risk of mistakes in patient care.<sup>9</sup>

Californians face substantially unequal access to physicians, depending on geography and insurance coverage. A 2001 survey of physicians statewide found that the Inland Empire, Central Valley/Sierra Nevada, and South Valley/Sierra Nevada regions had at least 30 percent fewer physicians, per capita, than Los Angeles and the Bay Area.<sup>10</sup>

Further, another study found that nearly half of all physicians practicing in California do not accept patients covered by Medi-Cal, the state's Medicaid program;<sup>11</sup> while a third survey found that 58 percent of California physicians refused to accept new patients with HMO coverage.<sup>12</sup>

According to a national survey, NPs in California earn an average of \$96,225 a year.<sup>13</sup> In comparison, U.S. Department of Labor statistics found that among physicians, family and general practitioners have a mean annual income of \$136,290; pediatricians, \$148,250; and internists, \$162,340.<sup>14</sup>

In the financial arena, reimbursement mechanisms and malpractice insurance policies vary widely among the states, and as with practice authority, these can prevent the efficient use of NPs.

Because states are the primary regulators of the health insurance industry and public programs such as Medicaid, the ability of NPs to qualify for direct third-party reimbursement depends largely on state law. In most states, NPs are not eligible for direct reimbursement from third-party payers.

Ironically, the predominance of laws that require physician-NP affiliation can create financial disincentives for physicians to engage with NPs. This is because increased NP use also can increase physicians' exposure to malpractice liability and prompt hikes in malpractice insurance rates.

Traditional views of physician-run practices as the sole model for delivery of quality health care can block a more comprehensive use of NPs. For example, HMOs may make decisions on NP use that are based on presumed patient perception of NPs' ability to provide adequate care.

Politically, physician preferences and NP practices are inextricably intertwined, as these two constituencies serve both as colleagues in the health care delivery system and as competitors in the health care marketplace.

NP scopes of practice are regularly in flux, in California and nationally, as policymakers face competing demands from constituencies whose interests often conflict.

Typically, boards of nursing and NPs favor expansion of NP scopes of practice, which would allow NPs to practice more autonomously or permit them to perform a wider variety of tasks.<sup>15</sup>

Opponents, such as state boards of medicine and physician lobbying groups, argue that NPs are not competent to practice more independently, or that they are insufficiently educated and trained to perform disputed procedures safely.

Constituencies that oppose expanded NP scopes of practice also may be motivated by competitive self-interest. NPs can be viewed as threats to market share, prompting opponents to block legislation that would recognize overlapping scopes of practice among professions.<sup>16</sup>

## Conclusion

Today, there is a great deal of discussion in health policy circles, in California and across the country, of an impending physician shortage. In many ways, this current debate mirrors the events of the 1960s, which spawned the initial development of the nurse practitioner.

Despite wide state-by-state differences in practice authorities, NPs deliver comprehensive medical services in a variety of settings and specialties, which are largely comparable to those provided by physicians, both in scope and medical outcomes.

The reappearance of the physician shortage issue suggests that the efficiency, accessibility, and quality of the health care system could benefit from increased inter-professional collaboration, and by revised models for delivery of medical services that employ uniform, shared scopes of practice among providers.

And with California possibly poised to overhaul its system of health care coverage, a review of the nurse practitioner's role in that system may become part of the plan.

**Table 1: Nurse Practitioner Scopes of Practice in the United States**

	Oversight Requirements				Practice Authorities		
	No MD Involvement	MD Supervision	MD Collaboration	Written Practice Protocol	Explicit Authority to Diagnose	Explicit Authority to Order Tests	Explicit Authority to Refer
Alabama			x	x	x	x	x
Alaska	x				x		
Arizona	x				x	x	x
Arkansas (advanced NP only)			x		x	x	
California			x	x			
Colorado					x		x
Connecticut			x		x		x
Delaware			x		x	x	x
District of Columbia	x				x		x
Florida		x		x	x	x	
Georgia			x	x	x		
Hawaii					x	x	x
Idaho	x				x		x
Illinois			x	x	x	x	
Indiana			x		x	x	x
Iowa	x				x	x	x
Kansas					x		x
Kentucky					x	x	x
Louisiana			x	x	x		x
Maine	x				x	x	x
Maryland			x	x	x	x	x
Massachusetts		x	x	x	x		
Michigan							
Minnesota			x		x		x
Mississippi			x	x	x		x
Missouri			x	x	x		
Montana	x				x	x	x
Nebraska		x	x	x	x	x	x
Nevada			x	x	x		x
New Hampshire	x				x	x	x
New Jersey					x	x	x
New Mexico	x						
New York			x	x	x		x
North Carolina		x	x	x	x	x	x
North Dakota					x		x
Ohio			x	x			x
Oklahoma		x			x		x
Oregon	x				x	x	x
Pennsylvania		x	x		x		
Rhode Island							
South Carolina		x	x	x	x		
South Dakota			x		x		x
Tennessee							
Texas		x	x	x	x		
Utah					x		x
Vermont			x	x	x		x
Virginia		x	x	x			
Washington	x				x	x	x
West Virginia			x	x	x		
Wisconsin		x			x	x	x
Wyoming			x	x	x		
<b>TOTALS</b>	<b>11</b>	<b>10</b>	<b>27</b>	<b>21</b>	<b>44</b>	<b>20</b>	<b>33</b>

For a fully annotated version of this chart, see [http://futurehealth.ucsf.edu/pdf\\_files/Chart%20of%20NP%20Scopes%20Fall%202007.pdf](http://futurehealth.ucsf.edu/pdf_files/Chart%20of%20NP%20Scopes%20Fall%202007.pdf).

**Important:** The chart is designed to be referenced from left to right. Thus, if the chart indicates that physician supervision or collaboration is required, then NPs may not diagnose, order tests, or refer patients without physician supervision or collaboration. Absent explicit statutory or regulatory language requiring a separate written agreement, the chart does not indicate that a written prescription drug protocol is required in states that already require NPs to establish written practice protocols with physicians.

**Table 1: Nurse Practitioner Scopes of Practice in the United States (continued)**

	Prescription Drug Authorities				National Certification Required	Joint Nursing-Medical Board Authority
	Authority to Prescribe without MD Involvement	Authority to Prescribe with MD Collaboration	Written Protocol Required to Prescribe	Authority to Prescribe Controlled Substances		
Alabama		x	x		x	x
Alaska	x			x	x	
Arizona	x			x	x	
Arkansas (advanced NP only)		x	x	x	x	
California		x	x	x		
Colorado		x	x	x		
Connecticut		x	x	x	x	
Delaware		x		x	x	x
District of Columbia	x			x	x	
Florida		x	x		x	x
Georgia		x	x	x	x	x
Hawaii		x	x	x		x
Idaho	x			x	x	x
Illinois		x	x	x	x	
Indiana		x	x	x		x
Iowa	x			x	x	
Kansas		x	x	x		
Kentucky		x	x	x	x	
Louisiana		x	x	x	x	
Maine	x			x	x	
Maryland		x		x	x	
Massachusetts		x	x	x	x	x
Michigan		x	x	x	x	
Minnesota		x	x	x	x	x
Mississippi		x	x	x	x	x
Missouri		x	x		x	
Montana	x			x	x	
Nebraska		x	x	x	x	
Nevada		x	x	x		
New Hampshire	x			x	x	
New Jersey		x	x	x	x	x
New Mexico	x			x	x	
New York		x	x	x		
North Carolina		x	x	x	x	x
North Dakota		x	x	x	x	
Ohio		x		x		
Oklahoma		x		x	x	x
Oregon	x			x		
Pennsylvania		x	x	x	x	
Rhode Island		x		x	x	
South Carolina		x	x	x	x	x
South Dakota		x		x	x	x
Tennessee		x	x	x	x	x
Texas		x	x	x	x	
Utah		x	x	x	x	
Vermont		x	x	x	x	
Virginia		x	x	x	x	x
Washington	x			x	x	
West Virginia		x	x	x	x	
Wisconsin		x	x	x	x	
Wyoming		x	x	x	x	
<b>TOTALS</b>	<b>11</b>	<b>40</b>	<b>34</b>	<b>48</b>	<b>42</b>	<b>17</b>

For a fully annotated version of this chart, see [http://futurehealth.ucsf.edu/pdf\\_files/Chart%20of%20NP%20Scopes%20Fall%202007.pdf](http://futurehealth.ucsf.edu/pdf_files/Chart%20of%20NP%20Scopes%20Fall%202007.pdf).

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## ENDNOTES

1. "The Registered Nurse Population: National Sample Survey of Registered Nurses" (Preliminary Findings). Released March 2004. Rockville, MD: U.S. Department of Health & Human Services, Health Resources & Services Administration. <http://bhpr.hrsa.gov/healthworkforce/reports/rnpopulation/preliminaryfindings.htm>. Accessed September 2007.
2. Federation of State Medical Boards. *Assessing Scope of Practice in Health Care Delivery: Critical Questions in Assuring Public Access and Safety*. Dallas, TX: 2005. [www.fsmb.org/pdf/2005\\_grpol\\_scope\\_of\\_practice.pdf](http://www.fsmb.org/pdf/2005_grpol_scope_of_practice.pdf). Accessed September 2007.
3. Buppert, C. *Nurse Practitioner's Business Practice and Legal Guide*. Sudbury, MA: Jones and Bartlett; 2008; p. 7.
4. California Health & Safety Code, secs 128200-128241. [www.oshpd.ca.gov/HWDD/pdfs/health\\_safetycodes\\_rev.pdf](http://www.oshpd.ca.gov/HWDD/pdfs/health_safetycodes_rev.pdf). Accessed September 2007.
5. Pearson, L. The Pearson Report. *The American Journal for Nurse Practitioners*. February 2007.
6. Nurse Practitioners, Physician Assistants, and Certified Nurse-Midwives: A Policy Analysis. Released 1986. Washington, D.C.: U.S. Congress, Office of Technology Assessment.
7. Laurant, M., Sergison, M., and Sibbald, B. Substitution of doctors by nurses in primary care. (Protocol) *The Cochrane Database of Systematic Reviews*. 1998; issue 4.
8. Pioro, M.H., Landefeld, C.S., Brennan, P.F., Daly B., Fortinsky, R.H., Kim, U., and Rosenthal, G.E. Outcomes-based trial of an inpatient nurse practitioner service for general medical patients. *Journal of Evaluation in Clinical Practice*. February 2001;7(1):21-33.
9. Stephanie E. Burgess, et. al. Rural and urban physicians' perceptions regarding the role and practice of the nurse practitioner, physician assistant and certified nurse midwife. *Journal of Rural Health*. 2003;Suppl. S:19:321-328.
10. Dower, C., McRee, T., Grumbach, K., Briggance, B., Mutha, S., Coffman, J., Vranizan, K., Bindman, A., and O'Neil, E. *The Practice of Medicine in California: A Profile of the Physician Workforce*. San Francisco, CA: California Workforce Initiative at the UCSF Center for the Health Professions. February 2001.
11. Bindman, A., Huen, W., Vranizan, K., Yoon, J., and Grumbach, K. Medi-Cal Policy Institute. *Physician Participation in Medi-Cal, 1996-98*. Oakland, CA: February 2002.
12. Grumbach, K., Dower, C., Mutha, S., Yoon, J., Huen, W., Keane, D., Rittenhouse, D., and Bindman, A. *California Physicians 2002: Practice and Perceptions*. San Francisco, CA: California Workforce Initiative at the UCSF Center for the Health Professions. December 2002.
13. Rollet, J., and Lebo, S. A decade of growth: salaries increase as profession matures. *ADVANCE for Nurse Practitioners*. January 2008; vol. 16, issue 1, p. 28.
14. State Occupational Employment and Wage Estimates. Released May 2006. Washington, D.C.: U.S. Dept. of Labor, Bureau of Labor Statistics. [www.bls.gov/oes/current/oes\\_CA.htm#top](http://www.bls.gov/oes/current/oes_CA.htm#top). Accessed December 2007.
15. For in-depth policy arguments, see Safriet, B.J., Health care dollars and regulatory sense: the role of advanced practice nursing. *Yale Journal on Regulation*. Summer 1992;9:Reg. 417.
16. For example, see American Medical Association House of Delegates, Resolution 904 (I-06). Released Sept. 25, 2006. [www.acnpweb.org/files/public/AMA\\_Resolution\\_904\\_11\\_06.pdf](http://www.acnpweb.org/files/public/AMA_Resolution_904_11_06.pdf). Accessed September 2007.

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