HEALTH POLICY REPORT

Expanding the Role of Advanced Nurse Practitioners — Risks and Rewards

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As the 2014 expansion of coverage mandated by the Affordable Care Act (ACA) looms larger, one question with no ready answer is how health care providers, policymakers, and payers will cope with an expected surge in patient demand for services. A shortage of primary care physicians to treat newly insured persons is the most immediate health workforce issue, but when added to the nation's population growth and more aging patients who require treatment, finding a practitioner may become an even more daunting challenge.

In addition, only about one quarter of medical-school graduates plan careers as primary care physicians,[1] and state scope-of-practice laws place limits on the clinical boundaries of advanced-practice registered nurses (APRNs), many of whom are providing primary care services in an array of settings.[2] Organized medicine, spearheaded by the American Medical Association (AMA), strongly supports scope-of-practice laws as necessary to ensure patient safety and prevent APRNs from providing primary care without oversight by a physician. Nursing advocates take strong exception to scope-of-practice restrictions, particularly with respect to limits on their authority to prescribe drugs. They emphasize that an Institute of Medicine (IOM) report recommended that nurses should be free to "practice to the full extent of their education and training."[3,4] Acknowledging that issuance of medical licenses has historically been the purview of states, Congress has not addressed the scope-of-practice matter,[2,5,6] but ongoing activities by the Federal Trade Commission (FTC) related to scope-of-practice laws and their effect on competition in the health care marketplace have drawn the ire of organized medicine.

In this article, I report on a recent estimate with regard to a growing shortage of physicians, the status of efforts to implement recommendations of an IOM report that charts a bold future for nursing, and the highly variable limits that state scope-of-practice laws impose on APRNs. I will discuss the intervention of the FTC into scope-of-practice matters, a new report by the National Governors Association that urges states to reexamine their scope-of-practice laws,[7] and a 2012 scope-of-practice law[8] enacted in Virginia that the AMA touts as a model for other states to follow. I will also cover a serious but ultimately unsuccessful dialogue organized by the Robert Wood Johnson Foundation that engaged a dozen physician and nursing leaders in search of "common ground" to resolve the issues that divide them. The collapse of this dialogue offered a snapshot of the unsettled states of discussions between national physician and nursing organizations over defining roles in an emerging model of team-based care that relies on interprofessional collaboration as one of its touchstones.

The physician workforce has grown more rapidly than the U.S. population over the past 30 years.[9] Nevertheless, the Association of American Medical Colleges estimates that by 2015 the nation will face a shortage of 62,100 physicians — 33,100 primary care practitioners and 29,000 other specialists.[10] A shortage of nurses evaporated during the recession, since many returned to the workforce, but nurse practitioners are a scarce resource in many areas. Actually, if the numbers of physicians and nurse practitioners were distributed more equally, there may be a sufficient number to care for most people, but because their practices are concentrated in urban and suburban locales, many rural and inner-city areas are left with too few practitioners in places where the need is often the greatest. In studies commissioned by the federal Agency for Healthcare Research and Quality, researchers at the Robert Graham Center estimated that 208,807 doctors, slightly fewer than one third of all full-time practicing physicians, 52% of nurse practi-

tioners (55,625),[11] and 43% of physician assistants (30,402) were providing primary care in 2010.[10]

The Department of Health and Human Services has been slow to provide its own workforce estimates because, as Secretary Kathleen Sebelius recently noted, of the complexities of "measuring the supply of health professionals working across a range of health occupations and updating methods for estimating demand for health services in light of evolving health care delivery, demographic shifts, and the expansion of health insurance coverage."[12] Sebelius was responding to a letter from Congress that requested "an analysis of health care workforce needs . . . and . . . a workforce plan."[13] Projecting the magnitude of greater demand for services is a difficult task, but research has consistently shown that persons with health insurance use more health care than do people without coverage.[14-16] The Congressional Budget Office estimated that, through the ACA, 15 million uninsured persons will secure coverage in 2014, and that number will increase to 35 million by 2016.[17]

Although the IOM report was issued more than 2 years ago, on October 5, 2010, it remains the road map that is guiding the future directions of nursing. The Robert Wood Johnson Foundation recognized that nurses needed a stronger educational base to press their case for greater clinical authority, so it approached the IOM in 2008 to propose a partnership between the two organizations to plot this course. The IOM agreed to the unique partnership, which was an unprecedented arrangement in its annals because, historically, it has closely protected its independence in conducting studies. The president of the IOM, Dr. Harvey V. Fineberg, described it as an "experiment" and offered a rationale in a foreword to the report:

> The possibility of strengthening the largest component of the health care workforce — nurses — to become partners and leaders in improving the delivery of care and the health care system as a whole inspired the IOM to partner with the Robert Wood Johnson Foundation . . . in creating the [Robert Wood Johnson Foundation] Initiative on the Future of Nursing, at the IOM. In this partnership, the IOM and [the Robert Wood Johnson Foundation] were in agreement that accessible, high-quality care cannot be achieved without exceptional nursing care and leadership. By working together, the two organizations sought to bring more credibility and visibility to the topic than either could by working alone. The organizations merged staff and resources in an unprecedented partnership to explore challenges central to the future of the nursing profession.[3]

The foundation's senior advisor for nursing, Dr. Susan Hassmiller, directed the staff of the IOM report and now oversees implementation of its recommendations through the Center to Champion Nursing in America, an initiative of the AARP, the AARP Foundation, and the Robert Wood Johnson Foundation.[18] Since 1982, the Robert Wood Johnson Foundation has granted $578 million to support schools of nursing and their faculty and students and to strengthen the quality of care once students are trained.

The initiative (described above), which was chaired by former Health and Human Services Secretary Donna Shalala, stamped the institute's influential imprimatur on four "key messages" in its exhaustive 671-page report. First, nurses should practice to the full extent of their education and training through the elimination of historical, regulatory, and policy barriers. Second, nurses should achieve higher levels of education and training through an improved educational system that promotes seamless academic progress. Third, nurses should be full partners, with physicians and other health care professionals, in redesigning the system. Last, government should create a greater capacity to undertake effective workforce planning and policymaking through better data collection and information infrastructures. (The ACA created a National Health Care Workforce Commission, but Congress has not appropriated monies for its activation.)

As the IOM report acknowledged, nursing has struggled throughout its history with definitional issues, particularly with respect to the various educational pathways that lead to an entry-level license to practice. Three pathways of varying lengths fulfill qualifications for initial licensure, all of which require the registered nurse to pass a nationally standardized examination in the state where he or she would practice. The most common pathway — an associate's degree conferred by community colleges and nursing schools — typically takes 2 to 3 years to com-

plete and includes some exposure to clinical medicine. The same holds true for a 3-year diploma program offered by hospitals; this is the least common path to initial licensure and one that is being phased out. The third pathway is a 4-year bachelor of science in nursing degree that is usually offered by a university or college-based school of nursing. The typical curriculum includes the preparatory courses required in the associate's degree and diploma programs, plus an in-depth focus on the sciences, nursing research, public health, and clinical training. To obtain a master's degree, a nurse with a bachelor of science in nursing must put in an additional 500 to 700 supervised clinical hours to qualify as a nurse practitioner.

By comparison, after earning a bachelor's degree, about 82,000 physician assistants who hold active state licenses to practice medicine under physician supervision average 2000 to 2200 hours of clinical training in a 26-month program with year-round instruction. More physician assistants and nurse practitioners, like physicians, are pursuing careers in specialties instead of primary care because of better compensation[19] (and Cawley J: personal communication). In 2011, the median total annual compensation of general internists was $215,689; family practitioners, $200,114; nurse practitioners (general category), $93,977; and physician assistants (primary care), $92,635.[20]

The IOM report reinforced what nursing leaders had already recognized and were actively promoting: nurses need to secure higher degrees to upgrade their skills and increase opportunities to expand their clinical reach.[21,22] This report recommended that 80% of nurses (up from about 50%) should hold at least a bachelor of science in nursing degree by 2020, in part because research shows lower mortality among surgical patients in hospitals with higher proportions of nurses with these degrees.[23] Of the IOM's recommendations, progress has been greatest in increasing the number of students who pursue higher degrees; this trend had begun before the IOM report was launched. Enrollments in bachelor of science in nursing programs between 2006 and 2011 increased 26.6%, from 133,578 to 169,125 persons, according to the American Association of Colleges of Nursing.[24]

Over this same period, enrollments in master's programs increased 68.6%, from 56,028 to 94,480 persons; a master's degree is a minimum requirement for a nurse to qualify as an APRN. Matriculants in doctor of nursing practice programs increased 955.0%, from 862 to 9094 persons. However, 75,587 qualified applicants were denied admission to baccalaureate and graduate nursing programs in 2011 because of an insufficient number of faculty, clinical sites, and classrooms, and because of budget constraints.[24] In response to the growth of doctor of nursing practice programs, Dr. Roland Goetz, chairman of the board of the American Academy of Family Physicians (AAFP), said the profession worried that it was losing control of the word "doctor."[25,26] In response to this concern and related issues, the AMA launched a "truth in advertising" campaign because the association said some patients had difficulty distinguishing between a physician and a nonphysician "doctor."[27]

A projected increase in numbers of nurse practitioners, as estimated by economist David Auerbach,[28] is one solution to ameliorating the shortage of primary care physicians. APRNs assume four distinct practice roles. Data from 2008 (the latest published by the U.S. Health Resources and Services Administration) show that most are nurse practitioners (158,348), followed by clinical nurse specialists who care for special patient populations (59,242), certified registered nurse anesthetists (34,821), and certified nurse midwives (18,492).[29] Nurse practitioners work in a variety of settings, including military facilities,[30] nurse-managed health centers,[31] and retail clinics.[32-34] However, more than half are employed in private physician practices (27.9%) and hospitals (24.1%), according to a recent survey to which 13,562 (56.4% of the total number of nurse practitioners surveyed) responded.[35] Many studies in the nursing literature provide support for the clinical performance of nurse practitioners.[36-41] One recent systematic review gave them high marks for delivering "safe, effective, quality care," but the authors also concluded that "APRNs, in partnership with physicians and other providers . . . will need to move forward with evidence-based and more collaborative models of care delivery."[42]

The AMA[43] has criticized studies that extol the care delivered by nurse practitioners, but that has not been the primary focus of its opposition to independent practice by nurse practitioners. Rather, the association has emphasized the greater educational preparation of physicians and noted how successful integrated systems (e.g., Geisinger Health System, Kaiser Perma-

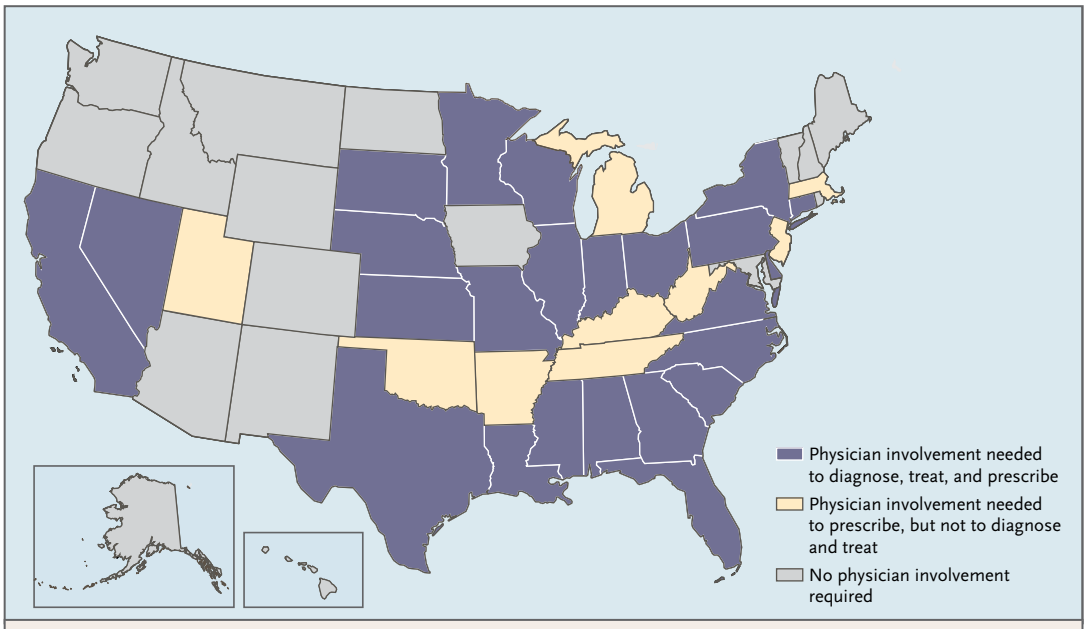

Figure 1. Requirements for Physician Involvement in the Work of Advanced-Practice Registered Nurses.

Through laws and regulations, states establish the clinical boundaries of nurse practitioners and their relationships with physicians. According to research conducted by the American Medical Association, in 16 states (Alaska, Arizona, Colorado, Iowa, Idaho, Maryland, Maine, Montana, North Dakota, New Hampshire, New Mexico, Oregon, Rhode Island, Vermont, Washington, and Wyoming) advanced-practice registered nurses (APRNs) have the statutory authority to practice without a written practice agreement with a supervising physician. Nine states (Arkansas, Kentucky, Massachusetts, Michigan, New Jersey, Oklahoma, Tennessee, Utah, and West Virginia) require physician involvement for APRNs to prescribe, but not to diagnose and treat. Twenty-four states (Alabama, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kansas, Louisiana, Minnesota, Missouri, Mississippi, North Carolina, Nebraska, Nevada, New York, Ohio, Pennsylvania, South Carolina, South Dakota, Texas, Virginia, and Wisconsin) require physician involvement for APRNs to diagnose, treat, and prescribe. Map courtesy of the American Medical Association.

nente, and the Department of Veterans Affairs) employ many nurse practitioners who practice in physician-led teams. The conclusion of organized medicine is that medical doctors should lead these teams in a hierarchical structure with collaborative relationships with nurse practitioners and other nonphysician providers. Despite their intense opposition to independent practice by nurse practitioners, research by the AMA and state medical societies has shown that most states that allow such practices do not document which nurse practitioners actually have independent practices.[44] One might speculate that, like physicians who are seeking financial shelter through hospital employment or other venues to weather the forces of consolidation, nurse practitioners could find themselves caught up in this same storm as they struggle to win independence and thus, in the end, they may prefer practicing in teams that seemingly would offer greater security.

The IOM report identified "as a serious barrier [to accessible care] overly restrictive scope-of-practice regulations for APRNs that vary by state." Noting the variability of these regulations — "a patchwork of state regulatory regimes," as they were characterized — the IOM committee found that some states allow nurse practitioners "to see patients and prescribe medications without physician supervision or collaboration," whereas "the majority of state laws lag behind in this regard . . . for reasons that are not related to [APRNs'] ability, education or training, or safety concerns, but to the political decisions of the state in which they work." According to the AMA, 16 states and the District of Columbia allow APRNs to diagnose, treat, and refer patients and prescribe medications without physician supervision. Nine states require physician involvement for APRNs to prescribe, but not to diagnose and treat, and 24 states require physician involvement for APRNs to diagnose, treat, and prescribe drugs[44] (Fig. 1).

Because of the scope-of-practice restrictions imposed on nurse practitioners in many states,

most nurse practitioners consider their lack of full authority to prescribe drugs to be the major impediment preventing them from delivering care efficiently (Aiken L: personal communication). In recent years, nurse practitioners have made limited progress in their efforts to remove this hurdle and other scope-of-practice restrictions. Since 2010, expanded scope-of-practice boundaries for nurse practitioners were reported in Colorado, Hawaii, Maryland, Massachusetts, North Dakota, and Vermont. The American Association of Nurse Practitioners reports that bills have been introduced this year in 10 state legislatures (in Connecticut, Illinois, Kansas, Kentucky, Massachusetts, Michigan, Minnesota, New Jersey, Nevada, and Texas) that propose expansion of the practice authority of nurse practitioners. In addition to scope-of-practice restrictions, the policies of public and private payers — to varying degrees — limit which services nurse practitioners are paid for, their payment rates, and whether they are designated as primary care providers and included in insurance and provider networks as independent practitioners.[45]

Because state-based scope-of-practice laws affect a large national workforce — approximately 3 million nurses — the IOM report asserted that the federal government should have "a compelling interest in the regulatory environment for health care professions . . . especially that of APRNs." Specifically, the report emphasized, the FTC "has a long history of targeting anticompetitive conduct in health care markets" by responding to "potential policies that might be viewed predominantly as guild protection rather than consumer protection." The FTC, clearly influenced by the IOM report and an increase in requests from state legislators, has accelerated its health care–related activities since 2010. Among its actions were letters to legislators in Missouri[46] and Tennessee[47] asserting that nurse anesthetists can safely provide interventional management services for patients with chronic pain without physician supervision. In a more recent instance, the FTC wrote in a letter to the Connecticut House of Representatives that physician supervision of APRNs was unnecessary.[48] The FTC based its opinion on the IOM report and noted that it had dismissed any contention that APRNs are less capable than doctors in delivering "safe, efficient, and effective" care and that "decades of research" had documented that fact.[48] In response, Dr. Jeremy Lazarus, president of the AMA, stated that "physicians have raised concerns that the physician-led model of care is being undermined by the Federal Trade Commission through its recent aggressive advocacy on behalf of the independent practice of non-physician health care professionals, such as nurse practitioners."[49]

Governors only rarely become heavily involved in scope-of-practice skirmishes, although they are mindful of them because they sign into law bills enacted by their state legislatures. Over the past decade, only one governor, Pennsylvania Democrat Edward Rendell, who served from 2003 to 2011, aggressively wielded his influence to persuade his state legislature to expand the scope of practice of nurse practitioners and other nonphysician providers.[50] To underscore its political symbolism, Rendell signed the measure into law at the School of Nursing of the University of Pennsylvania. Given the virtual noninvolvement of governors in scope-of-practice matters, it came as a surprise when the National Governors Association issued a report in December 2012 recommending that states consider reexamining their scope-of-practice laws as one option for increasing the number of primary care providers.[7]

In Virginia, after prolonged negotiations that engaged the Medical Society of Virginia and the Virginia Council of Nurse Practitioners, the state legislature unanimously enacted a "compromise" struck by the two organizations in March 2012.[8] The law stipulates that nurse practitioners must work as part of a patient-care team led and managed by a physician, and they must adhere to scope-of-practice limits as applied to them. The law expands from four to six the number of nurse practitioners who can be supervised by a physician, and it recognizes telemedicine as a legal form of oversight when nurse practitioners practice in different locations. The boards of medicine and nursing in Virginia jointly drafted regulations implementing the law. The AMA promotes the Virginia law as a model that other states should consider, but the American Association of Nurse Practitioners believes the law places Virginia out of step with national trends.

Team-based care is seen as a wave of the future, but progress has been slow because interprofessional educational opportunities are few (though increasing), training silos are many, and cultural change is difficult.[51-56] The Robert Wood Johnson Foundation recognized the emerging state of the model and the controversies sur-

rounding the IOM report and invited a dozen leaders of national physician and nurse organizations to discuss their differences. In setting the context, Dr. Risa Lavizzo-Mourey, chief executive officer (CEO) of the foundation, urged conferees to engage "without using terms with charged meanings, such as 'scope of practice,' 'independent' and 'lead' that often have us talking past each other."[57] After three constructive meetings in 2011, the foundation prepared a 24-page draft document entitled "Common Ground: An Agreement between Nurse and Physician Leaders on Interprofessional Collaboration for the Future of Patient Care."[58] The draft touched on an array of hot buttons that have divided physicians and nurses. For example, "The 'captain of the ship' notion . . . needs to be eliminated, focusing on the patient as the driver of care. We need to move from hierarchical leadership to situational leadership . . . A physician, nurse, social worker or other provider may take the lead in a given situation."

The staff of the Robert Wood Johnson Foundation, participating nurse leaders, and several physician representatives were under the impression that all the principal attendees leaned toward support of the document but, ultimately, that proved not to be the case. In the course of the process, when principals shared the document with their national organizations for their reactions, it was leaked prematurely to the AMA, which had not been invited to the foundation's meetings, and it drew opposition from the house of delegates of the association at its 2011 midwinter meeting. After that, the AAFP, the American Osteopathic Association, and the American Academy of Pediatrics withdrew their support from the dialogue sponsored by the Robert Wood Johnson Foundation; these withdrawals led to its collapse without public notice. In describing lessons learned, Hassmiller, who directed the staff of the IOM report, said, "you can get [physicians and nurses] to work together on the front lines. At the association level, there's a lot of guild protection."[59] Dr. Steven Weinberger, CEO of the American College of Physicians and a participant in the foundation's discussion, said: "It's a whole different conversation when you have people talking face to face. When you have people dealing in isolated organizations, the other profession can become a black box that's easy to rail against."[59]

Battles between national medical and nursing organizations will undoubtedly continue,[60] but the larger challenge of providing coverage to millions of newly insured persons is likely to provoke outcries — assuming these persons have difficulty gaining access to care — and hold the potential of turning their turf wars into broader public issues that bear closer federal and state government scrutiny and accelerate private-market action. However, given the partisanship that thwarts policymaking in the nation's capital and many states, progress in restructuring delivery systems may come more rapidly at the practice level, where physicians, nurses, and other caregivers are freer to innovate and to assign tasks to persons on the basis of the full extent of their training and what makes organizational sense. Greater leadership among physicians and nurses who are prepared to challenge their guilds may also become an imperative in addressing these complex issues.[61,62]

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

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