The presence of regulatory requirements that physicians supervise nurse practitioner (NP) practice and policies that affect insurance reimbursement policies create barriers that limit North Carolina NPs from practicing to the full extent of their licensure, education, and certification. This article reviews these barriers and offers policy recommendations to ensure that NPs are equal partners in health reform innovations.

Nurse practitioners (NPs) are advanced practice registered nurses (APRNs) who have provided safe, effective health care in the United States since 1967 [1]. Wide variations in the regulations of NPs limit the full use of these proven health care professionals. The presence of regulatory requirements that physicians supervise NP practice and policies that affect insurance reimbursement create barriers that limit NP mobility, consumer choice, and access to health care and sustainable reimbursement [2-5].

The purpose of this article is to examine physician supervision and reimbursement policies related to NP practice in North Carolina. The evolution of the NP profession and a summary of the national regulatory environment, with an emphasis on southern states, are discussed as context. While some NPs practice in specialty settings, the focus of this article will be limited to NPs working in primary care settings. Policy recommendations that ensure that these primary care professionals are equal partners in health care reform are discussed.

Evolution of the NP Profession

The first NP educational program was piloted at the University of Colorado in 1965 by a physician, Dr. Henry Silver, and a nurse, Dr. Loretta Ford, as a nondegree program [1] and was intended to meet the primary health care needs of vulnerable pediatric populations and to fill the gap caused by a shortage of primary care physicians. In this program, a nursing model was used to guide the delivery of health promotion and disease prevention. Since then, the NP profession has had rapid growth, with a current NP workforce of more than 150,000 in the United States [6].

NP practice in North Carolina. The first NP degree-granting program, initially an experimental family NP certificate program, was established at the University of North Carolina (UNC)-Chapel Hill. This program began in September 1970 with 7 nurses, all of whom completed the program in May 1971 (Nancy D. Lamontagne, associate director of communications, School of Nursing, UNC-Chapel Hill, e-mail, August 26, 2011). North Carolina led the nation in regulatory policies to expand the role of nursing and was the first state to establish statutes, rules, and regulations defining the scope of NP practice [7, 8].

Early successes in NP regulation in North Carolina required political compromises that led to use of a medical model with statutorily required physician supervision of NP practice, rather than the autonomous advanced practice nursing model proposed in the original NP demonstration project, to define the scope of NP practice [1, 7-9]. This compromise resulted in a joint regulatory model whereby NP practice in North Carolina is regulated through a joint subcommittee of both the nursing and the medical boards, creating an unusual hierarchal relationship in which the medical profession is involved in the supervision of advanced practice nursing professionals [7-9].

Joint regulation remains in only 5 states (Florida, Mississippi, North Carolina, South Carolina, and Virginia). NP practice in Florida and Tennessee is regulated by the board of nursing in each state but still has statutory requirements for physician supervision. The remaining 43 states and the District of Columbia regulate NP practice solely through their respective boards of nursing, without a statutory requirement for physician supervision [6].

APRN model regulation. Wide variations in state regulation of NP practice erect barriers that limit NPs from practicing to the full extent of their licensure, education, and
Physician Supervision

Collaboration and consultation, when clinically appropriate, is expected of professionals. NPs are accountable in legal and regulatory senses for their own practices. Requirements for physician supervision unnecessarily limit where NPs can serve because they tie NPs and their practice to a physician’s willingness and availability to supervise [4, 5]. Because no evidence suggests that physician supervision is associated with improved patient safety and outcomes, it is poor use of physicians—a valuable health care resource—to require them to supervise NPs [2, 4, 6].

The Healthcare Integrity and Protection Data Bank (available at: http://www.npdb-hipdb.hrsa.gov) specifies the total number of adverse action reports, civil judgments, and/or criminal convictions associated with health care. NPs consistently have lower liability claims than do their physician colleagues [6]. No difference has been seen in NP report rates in states with joint regulation, compared with states that do not require physician supervision of NP practice. Rates were extrapolated for comparable complexities in patient populations. These NP safety rates demonstrate that the use of safety concerns to justify the requirement that physicians supervise NP practice is baseless [6].

Safety and efficacy of NP practice. Substantial evidence from over 4 decades demonstrate that NPs provide health care outcomes that are comparable to or better than those provided by other clinicians with similar scopes of practice [4, 11, 12]. Rigorous educational preparation acquired through completion of at least 2 nursing degree programs, supervised clinical education, licensure, national certification, and competency maintained through ongoing education and training ensure these documented outcomes [2, 4–6, 10].

Local politics. Wide variations in NP regulation continue to allow for statutorily required physician supervision in North Carolina and other southeastern states [2, 6]. Sociopolitical context underscores the regulatory dynamics in these regions. Continued supervision requirements for NP practice have been cited as examples of regulation used for proprietary interests and economic defensiveness, rather than for patient safety or consumer interests [5].

Impact of physician supervision. The requirement that physicians supervise NP practice threatens NP mobility, consumer choice, and access to care. If NPs must be tied to physicians through supervision, NPs are limited with respect to where they can serve. This places limits on consumer access to primary care providers, as noted in case study 1 in Table 2.

Previous studies have documented variations in NP regulation that are based on sociopolitical norms, proprietary interests, and economic defensiveness [5, 9]. Data regarding the cost of physician supervision are poorly documented. Anecdotal information, however, suggests a cost of $500–$3,000 per month for physician supervision of NP practice. This cost is passed on to consumers, without any apparent improvement in patient safety or health care outcomes [2, 4, 6]. Furthermore, states with requirements for physician supervision of NP practice are more likely to have restrictive managed-care contracting policies [2, 4].

NP Reimbursement

Medicare, Medicaid, commercial indemnity insurers, and commercial managed care organizations are the third-party payers that reimburse NP services [13]. The following discussion shows how current reimbursement policies threaten the sustainability of NP practices, confound health care outcome and workforce data, and limit consumer choice.

Medicare. Medicare recognizes NPs as primary care providers, reimbursing NPs at 85% of the physician rate for the same services delivered in the same settings. Medicare does allow incident-to billing, in which the NP may be reimbursed 100% of the physician rate if the NP services are billed under the physician’s provider number and if care is rendered under the direct supervision of the physician [13]. Incident-to billing requires the patient to see a physician for new problems and at established intervals. This process obscures NP-delivered care and limits consumer choice, because provider selection is dictated by reimbursement policies. Furthermore, Medicare reimbursement policies create barriers to home health and hospice care management for NPs [14]. Common reimbursement-related barriers are listed in Table 3.

Medicaid. Medicaid fee-for-service plans reimburse NPs at 100% of the physician rate. However, some states reimburse NPs at a reduced rate [13]. Furthermore, Medicaid policy limits consumer choice by reimbursing family and pediatric NPs but failing to specify reimbursement for adult, geriatric, or other NPs with specialty certification.

Medicaid managed care plans differ from Medicaid fee-for-service plans because there is variability in enrollment certification [4–6]. The National Council of State Boards of Nursing recommends uniform, model regulation that is based on licensure, accreditation, certification, and education [10]. Consensus-model goals are listed in Table 1. Uniform, model APRN regulation needs to be effectively aligned to ensure continued patient safety while expanding patient access to NP-delivered care [10].

<table>
<thead>
<tr>
<th>TABLE 1. National Council of State Boards of Nursing Consensus-Model Regulation Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
</tr>
<tr>
<td>Promote quality APRN education</td>
</tr>
<tr>
<td>Develop standardized, national APRN regulation, including education, accreditation, certification, and licensure</td>
</tr>
<tr>
<td>Establish a set of standards that protect the public, improve mobility of APRNs, and improve consumer access to safe, effective APRN care</td>
</tr>
</tbody>
</table>

Note. Information is from [10]. APRN, advanced practice registered nurse.
TABLE 2.
Case Studies of Adverse Outcomes Associated With Physician Supervision and Insurance Reimbursement for Nurse Practitioners (NPs)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Case study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician supervision</td>
<td>A thriving NP-owned practice in rural western North Carolina, with 2,000 patients is managed by 2 NP partners and a small staff of 8 employees. The practice is the only practice in the small, rural town. The NPs contract for physician supervision, as required by North Carolina statutes [8]. The physician is remotely located and visits the practice for the twice-yearly meetings required for the quality improvement process. The practice manager drives 60 miles round-trip once per week to deliver and pick up paperwork that requires a signature from the physician who supervises the NP-delivered care. The physician is paid $25,000 annually to supervise the NP practice. During a busy practice day, the NP practice receives notice from the North Carolina Board of Nursing that their supervising physician no longer has an active medical license and that the practice has 30 days to find another supervising physician or they will have to close their practice. The NP practice is threatened with closure because of the absence of statutorily required physician supervision. Two thousand health care consumers are threatened with loss of access to health care and choice of health care professionals. A new supervising physician is secured only 5 days before the office would have been forced to close.</td>
</tr>
<tr>
<td>Insurance reimbursement</td>
<td>J.D., a family NP, owns an established, rural primary care practice in North Carolina that serves Medicaid, Medicare, and indemnity plan clients across the life span. J.D. contracts with a physician for supervision, as required by North Carolina statutes [8]. J.D.’s supervising physician decides to relocate and gives notice that he will be resigning as the supervising physician for the practice. A different supervising physician is hired, requiring another contract with the indemnity insurer. The insurer refuses to renew the contract with this NP and practice, although many of the clients in this practice are covered by the plan. When the insurer is questioned about why it will not renew the contract, it replies that it does not contract with NPs. The insurer is unable to explain how the NP had been able to contract with its office previously. The clients with this insurer have to find another health care professional or pay out of pocket for their care at J.D.’s practice. The viability of the NP practice is threatened by inconsistent reimbursement policies that tie the NP to physician practice and limit consumer choice.</td>
</tr>
</tbody>
</table>

and selection of panels of beneficiaries for participating practitioners, depending on the company. Generally, only those providers admitted to the plan’s provider panel are eligible for reimbursement [13, 14].

A 2009 study revealed that nearly half of all major managed care organizations in the United States do not credential or contract with NPs as primary care professionals [3]. Of those who do not credential NPs, 4% stated that they would make an exception if the NP provided care to rural or Medicaid beneficiaries. As long as NPs are viewed as providers of last resort, equity in credentialing and reimbursement will remain elusive [3].

**North Carolina reimbursement realities.** The 1993 third-party reimbursement legislation mandates direct reimbursement to NPs for services within their scope of practice, when reimbursable to another provider. Moreover, the 2001 managed care patients’ bill of rights prevents discrimination against NPs who want to apply for managed care organization empanelment [13]. Despite this legislation, wide variations in NP reimbursement policies exist, even within the same insurance companies, resulting in consumer barriers to access to NP care, as described in Table 2.

**Indemnity insurers and commercial managed care organizations.** Indemnity insurers reimburse health care providers on a fee-for-service basis, whereas commercial managed care organizations provide coverage for bundled, aggregate services. Each company has its own policy regarding reimbursement of NP-provided services. The policies vary and include payment at the physician rate, without requirement for admission to a provider panel; reimbursement at a reduced rate; reimbursement under the physician employer’s name; and outright denial of payment for NP services [3, 13].

Insurance industry policies requiring physician endorsement for NP reimbursement are more restrictive than state requirements. Restrictive reimbursement policies create barriers to NP practice by unnecessarily tying the NP to physician employers or supervisors. This association increases health care costs, which are passed on to the consumer. Furthermore, lack of parity in reimbursement creates inequities in sustainable reimbursement.

**Policy Implications**

Restrictive state regulation that requires physician supervision of NP practice unnecessarily limits NP practice and consumer access to proven primary care providers, with no improvement in health care outcomes [2, 5, 9]. Moreover, physician supervision of NP practice obscures NP care and confounds workforce data by crediting NP care under physician data. Last, more-restrictive reimbursement policies are noted in states that require physician supervision of NP practice [2].

Variability in reimbursement policies creates an unsustainable payment system for NPs [4, 13]. When insurers adopt more-stringent policies than are required by state law, consumer choice is limited and health care costs are increased [3]. Last, requirements for physician supervision and restrictive reimbursement policies create barriers for NPs as full partners in current and future innovations in health care delivery, including medical homes, insurance exchanges, and accountable care organizations [4].

**Policy Recommendations**

The policy implications of physician supervision and insurance reimbursement are crucial to the discussion of health care reform and to retooling the health care workforce in North Carolina. Efforts that increase patient access
to the full primary care workforce and that allow patient choice in provider selection must be supported [2, 4]. To achieve sustainable reimbursement, reimbursement systems must be reengineered to reflect the true costs of care in all practice settings [3]. Furthermore, to ensure accountability and collection of accurate workforce data, health care outcomes should be linked to specific professionals, thereby eliminating the obscurity of NP data being assumed under the supervising physician’s name. NP-led practices and NPs should be included as full partners in medical homes, accountable care organizations, insurance exchanges, and other developing innovative models of care [4, 15]. Last, outdated legislative and regulatory barriers that impede the full use of NPs should be removed [2, 4, 5]. Consensus-model advanced practice registered nurse regulation is standard for uniform, consumer-centric regulation [10].

Conclusions

North Carolina has a rich history of collaborative relationships between health care thought leaders who are focusing on measures to provide consumer access to safe, effective, accountable health care. As health care continues to evolve, efforts are required to move beyond the status quo and critically evaluate new and innovative models of care [4, 15]. Last, outdated legislative and regulatory barriers that impede the full use of NPs should be removed [2, 4, 5]. Consensus-model advanced practice registered nurse regulation is standard for uniform, consumer-centric regulation [10].

Acknowledgments

Potential conflicts of interest. B.L. and D.V. have no relevant conflicts of interest.

References


Bobby Lowery, PhD(c), MN, FNP-BC clinical assistant professor and director, Adult and Family Nurse Practitioner concentrations, Department of Graduate Nursing Science, College of Nursing, East Carolina University; Greenville, North Carolina.
Deborah Varnam, MSN, FNP-BC owner, Varnam Family Wellness Center, Shallotte, North Carolina.

<table>
<thead>
<tr>
<th>Variable (statute)</th>
<th>Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician supervision</td>
<td>Physician supervision is linked with more-restrictive reimbursement policies</td>
</tr>
<tr>
<td>Handicap placards (20-37.6)</td>
<td>Commonly used in primary care; delays care for consumer and increases cost by physician involvement</td>
</tr>
<tr>
<td>Private provider vaccine agreement (130A-152)</td>
<td>Required for childhood vaccine administration</td>
</tr>
<tr>
<td>Physicians’ request for medical exemption of vaccines for children (130A-156)</td>
<td>Physician signature required</td>
</tr>
<tr>
<td>Medicare home healthcare</td>
<td>Physician signature required to order</td>
</tr>
</tbody>
</table>

**Table 3.**

Common Reimbursement Barriers to Nurse Practitioner Practice and Forms Requiring Physician Signature