

How Nurse Practitioners Obtained Provider Status: Lessons for Pharmacists

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Abstract and Introduction

Abstract

The history of nurse practitioners, their efforts to achieve provider status, and lessons learned from their activism are discussed.

The nurse practitioner profession arose out of a need to meet a rising demand for primary care services, especially in rural areas. Some nurses and physicians vehemently opposed the nurse practitioner model, but studies documented the value of nurse practitioner services, and the utilization of these practitioners continued to grow. Compensation was provided via salary or per-member-per-month agreements. Nurse practitioners recognized that direct federal reimbursement (provider status) was needed to recognize them as independent health care providers and assign specific monetary values to their services, so they undertook an aggressive lobbying campaign. Contacts on Capitol Hill were exploited, and nursing organizations encouraged nurse practitioners to get involved in grass-roots activism. Nurse practitioners discussed their patients during meetings with their representatives in Congress, and legislators were invited to make site visits. In 1993, the American College of Nurse Practitioners was formed to unite the profession and move the campaign forward. Ultimately, the Balanced Budget Act of 1997 granted nurse practitioners provider status and authorized them to bill Medicare directly for services furnished in any setting. The key strategies that contributed to this victory were (1) gaining recognition that nursing had the potential to expand its role, (2) documenting nurse practitioners value, (3) establishing standards in education and credentialing, (4) using professional organizations to empower individuals, and (5) being willing to accept small, incremental gains over time.

The experience of nurse practitioners in obtaining Medicare provider status offers valuable lessons for pharmacists as they pursue the same goal.

Introduction

Pharmacy practice has evolved into a comprehensive set of clinical, consultative, and educational services. Thirty-nine states, the Department of Veterans Affairs, and the Indian Health Service have all recognized the value of pharmacist services in collaborative drug therapy management.^[1] However, these services are not recognized under Title XVIII of the Social Security Act.^[2] Inclusion in this section determines reimbursement eligibility under Medicare and is referred to as provider status. The Pharmacist Provider Coalition -- made up of the American Society of Health-System Pharmacists, the American Pharmacists Association, the American College of Clinical Pharmacists, the American Society of Consultant Pharmacists, the College of Psychiatric and Neurologic Pharmacists, the American Association of Colleges of Pharmacy, and the Academy of Managed Care Pharmacy -- is currently seeking provider status for pharmacists.

Provider status is vital to the recognition and sustainability of a health care profession. Health systems must subsidize the nonreimbursable activities of their employed professionals or choose not to offer their services. Also, other public and private insurers refer to the Social Security Act to define covered medical and health services. Services not covered by insurance are often not established at health care facilities or offered to patients.

Nurse practitioners were granted Medicare provider status in 1997.^[3] Recognition of nurse practitioners as Medicare-eligible health care providers was the result of years of persistent, passionate activism by nurse practitioners and their leaders. The evolution of advanced-practice nursing^a and its subsequent inclusion in federal health care reimbursement language is an excellent example of a health profession achieving change and

recognition.

This article discusses the history of nurse practitioners, their efforts to achieve provider status, and lessons learned from their activism that may be relevant to pharmacists.

^aAdvanced-practice nursing includes the specialties of nurse practitioners, nurse anesthetists, nurse-midwives, and clinical nurse specialists. This article focuses mainly on nurse practitioners, although some overlap exists in the history and advocacy of these specialties.

History of Nurse Practitioners

An overview of the nurse practitioner profession and its prescribing authority is provided in Appendix A.^[4,5]

In the late 1950s and early 1960s, physicians began mentoring and collaborating with nurses who had clinical experience. In addition, increasing specialization in medicine led a large number of physicians out of primary care, creating a shortage of primary care physicians and leaving many areas, especially rural areas, medically underserved. In 1965, the Medicare and Medicaid programs provided health care coverage to low-income women, children, the elderly, and people with disabilities. The sudden availability of coverage increased the demand for expanded primary care services. Because physicians were unable to meet this demand, nurses "stepped into the breach."^[4] Nursing leaders believed that nurses were qualified to expand their roles and meet the need.^[6]

In 1965, Loretta Ford and Henry Silver, a nurse and a physician, created the first training program for nurse practitioners. The curriculum focused on health promotion, disease prevention, and the health of children and families.^[7] According to Ford, society's demand for primary care services and nursing's potential to meet the need were the reasons for the development of nurse practitioners; the physician shortage merely provided the opportunity.^[8,9] Others describe the physician shortage as the rationale for the expansion of nurse practitioner programs nationwide.^[10,11]

Some nurses and physicians opposed the nurse practitioner model. Certain nursing leaders believed that nurse practitioners were no longer practicing nursing, that the title was "ambiguous and misleading," and that such training in primary care medicine would "control and devour nursing education and practice."^[12] Organized medicine expressed opposition to the concept of a nurse "functioning in an expanded role not under [physicians'] direction," labeled the concept bad doctoring, and would concede only that these independent practitioners were physician extenders. Some in both nursing and medicine viewed this type of collaboration with alarm, suspicion, and distrust.

Nurse practitioners were created in an environment of informal training, a lack of credentialing processes, increasing sophistication of medical care, and opposition. In response to these challenges, nurse practitioners began to define and legitimize their profession. In the 1970s, they documented that they increased the availability of primary care services and that patients and physicians were satisfied with their care.^[13- 18] Health care faced new challenges in the early 1980s: The physician shortage became a surplus, and employers focused on controlling the skyrocketing cost of care. To address this, nurse practitioners conducted studies of increasing scientific rigor to establish their value.^[19- 22] A 1994 article in the *New England Journal of Medicine* concluded that, "When measures of diagnostic certainty, management competence, or comprehensiveness, quality, and cost are used, virtually every study indicates that the primary care provided by nurse practitioners is equivalent or superior to that provided by physicians."^[23] Such articles and conclusions were vehemently disputed by many physicians, but nurse practitioners responded with still more data, including a randomized trial in the *Journal of the American Medical Association* supporting the hypothesis that primary care outcomes do not differ between nurse practitioner and physician delivery.^[22] These findings spurred increasing utilization of nurse practitioners and would prove vital in establishing policies validating the profession.

Nurse practitioners continued to grow in number and autonomy in response to an expanding need for accessible, cost-effective care.^[19,20] As their impact on health care increased, nurse practitioners sought greater professional and economic recognition. In an attempt to clarify the scope of practice and to meet federal regulations for reimbursement, advanced-practice nursing organizations began offering voluntary certifications and titles.^[24] The result was a confusing list of titles and credentials that led to even more confusing scopes of practice and forms of reimbursement. The National Council of State Boards of Nursing ultimately defined advanced-practice nursing, established the master of science in nursing degree and licensure as a registered nurse as the minimum standards

for certification, and recommended licensure as the preferred method for regulating the profession.^[24- 26]

Pursuit of Reimbursement and Provider Status

Nurse practitioners were initially paid primarily as employees of the physician or hospital, often under Medicare rules that reimbursed their collaborative activities under the physician's provider number. Under pressure to control costs, managed care organizations made greater use of nurse practitioners. Financial arrangements included fee-for-service and risk-bearing models; compensation was provided via salary or permember-per-month agreements.^[27]

Some nurse practitioners working in medically underserved rural areas took advantage of reimbursement available under the Rural Health Clinic Act of 1977.^[28] Data showing the cost-effectiveness of advanced-practice nursing in rural and managed care settings encouraged other nurse practitioners to participate in demonstration projects and document their effectiveness.

A lack of direct federal reimbursement (provider status) remained a significant barrier to the utilization of nurse practitioners.^[19] Direct reimbursement was needed to recognize these nurses as independent health care providers, place them on an equal footing with other providers, and assign specific monetary values to their services.^[29] Nurse practitioners made direct reimbursement by Medicare, Medicaid, and commercial health insurers a top legislative priority. They began an aggressive campaign that achieved a series of incremental legislative and policy victories over 20 years, ultimately resulting in provider status in 1997 ().

Table 1. Major Efforts Leading to Provider Status of Nurse Practitioners

Year	Action	Details
1974	S. 3644 introduced by Sen. Inouye, H. Rep. 15867 introduced by Rep. Matsunaga ^[30]	A bill to amend the Social Security Act to provide for inclusion of the services of licensed (registered) nurse practitioners under Medicare and Medicaid.
1977	Rural Health Clinic Act ^[31]	Mandated that 50% of services in funded rural health clinics be provided by nurse practitioners, certified nurse-midwives, and physician assistants.
1979	Nurse Training Act	Mandated a study to assess nursing education, recommend distribution in underserved areas, and suggest actions to encourage nurses to remain active in the profession. ^[19]
1983	Institute of Medicine report: "Nursing and Nursing Education: Public Policies and Private Actions" ^[19]	Documented the productivity gains and cost reductions achieved by advanced-practice nursing. Recommended federal support for advanced-practice nurse education, modification of state practice acts that inhibit advanced-practice nursing, and payment for advanced-practice nursing services by Medicare, Medicaid, and other public and private payment systems.
1986	Office of Technology Assessment report: "Nurse Practitioners, Physician Assistants, and Certified Nurse-Midwives: A Policy Analysis" ^[20]	Within their areas of competence nurse practitioners provide care whose quality is equivalent to that of care provided by physicians . . . [Nurse practitioners] are more adept at providing services that depend on communication with patients and preventive action.
1989	Omnibus Budget Reconciliation Act of 1989 ^[32]	Provided limited reimbursement for nurse practitioners collaborating with physicians in rural areas and established Medicaid payments for pediatric or family nurse practitioners. Created the Resource-Based Relative Value Scale (RBRVS), a mechanism for calculating Medicare payments to physicians, and

		called for a study on the impact of RBRVS on nonphysician providers.
1991	Primary Care Health Practitioner Incentive Act of 1991 (stalled in committee) ^[33]	Amended Title XVIII of the Social Security Act to provide for increased Medicare reimbursement of nurse practitioners, clinical nurse specialists, and certified nurse-midwives and to increase the delivery of health services in underserved areas.
1992	Survey evaluating need for unified national organization	Representatives of state and national nurse practitioner organizations acknowledged the need for a national forum to discuss issues common to all nurse practitioners, regardless of their clinical specialty. ^[42]
1993	Invitational Nurse Practitioner Leadership Summit	National Nurse Practitioner Coalition (NNPC) formed to provide nurse practitioners nationwide with information and to support direct involvement in lobbying, advocacy, and health care policy formation. ^[34]
1996	Reimbursement task force created by American College of Nurse Practitioners (ACNP)	ACNP (formerly NNPC) coordinated a national grass-roots effort to spur nurse practitioner involvement in activism. ^[34]
1997	Balanced Budget Act of 1997 ^[3]	Granted provider status to nurse practitioners and authorized nurse practitioners to bill Medicare directly for services furnished in any setting.

Lobbying Campaign

The nursing profession took advantage of key contacts on Capitol Hill to achieve reimbursement and provider status. These relationships were forged over time and were built on personal contacts, respect for the nursing profession, and shared interests in health care issues.

Politics and the practice of nursing have been described as "intimately connected."^[35] During the campaign for reimbursement, 14 nurses completed the prestigious Robert Wood Johnson Health Policy Fellowship and worked on health care issues in congressional offices and committees.^[36] Many nurses combined their clinical training with political activism through White House fellowships, presidential management internships, and graduate and postgraduate studies in health care policy. For example, the former executive dean of the Kennedy School of Government at Harvard University, Sheila P. Burke, R.N., M.P.A., served for 10 years as the chief of staff for Senate Majority Leader Robert Dole. In total, she had served on Senator Dole's staff for 17 years.

The contacts and participation of nurses gave the profession substantial influence on federal health care policy. The Omnibus Reconciliation Act of 1989 provided limited reimbursement for nurse practitioners and mandated a study of nonphysician providers and Medicare reimbursement.^[32] These changes were influenced by a nurse practitioner appointee to the 14-member Physician Payment Review Committee, as well as by nursing organizations.^[37]

Nursing organizations polled their members to identify anyone who worked with or was friends with policymakers. These contacts continued to bear fruit. One key senator expressed appreciation for the care nurses provided when he was recovering from a war injury; another saw nurses as a solution to shortages of health care in rural America. Nurse practitioners and other nonphysician providers working in congressional offices subtly delivered the message when working with their peers. Several key policymakers began actively supporting nurse practitioner legislation. Nursing organizations thanked their congressional advocates with awards and recognition at local, state, and national meetings and worked within their membership to express gratitude at the district level.

Grass-Roots Activism

Nursing organizations strongly encouraged nurse practitioners to get involved in grass-roots activism.^[35] Association journals helped nurse practitioners recognize the importance of nursingfriendly health policies and political allies. Seminars and print materials taught nurse practitioners to communicate with legislators as health

care professionals, not as lobbyists.^[35,38-41] The executive vice president of the American College of Nurse Practitioners demonstrated for activists how she would introduce herself to a lawmaker: "Hi, my name is Nancy Sharp. I'm a renal dialysis nurse practitioner from Gary, Indiana. I take care of people whose kidneys don't work, and I work in the dialysis center on the corner of 5th and Broadway, in your district" (Sharp N, personal communication, 2001 Jul 24).

Nurse practitioners discussed their patients -- and fellow voters -- during meetings with their representatives in Congress. Legislators were invited to visit sites where nurse practitioners worked and to observe them caring for patients. These congresspeople later reflected on what they had witnessed in testimonials supportive of nurse practitioners (see sidebar).

Creating a Coalition

Between 1973 and 1985, at least 11 nurse practitioner organizations centering on clinical specialties or practice settings were created.^[41] Nurse practitioner leaders appreciated the diversity offered by the specialty organizations but condemned the lack of unity on key issues.^[34] In 1992, the need for a national forum to discuss shared issues was recognized, and in 1993 these discussions led to a leadership summit. One hundred twenty-five nurse practitioner leaders gathered to plan a unified approach to policy and advocacy development, and a position statement was published.^[34]

1993 also saw the formation of the National Nurse Practitioner Coalition (NNPC), a lobbying organization. A survey found that 9 of 10 respondents favored "a national organization that serves and represents individual nurse practitioners and nurse practitioner organizations under one unified umbrella."^[42] Shortly thereafter, the coalition became the American College of Nurse Practitioners (ACNP). Membership in ACNP was offered to individual nurse practitioners, small groups of nurse practitioners from individual institutions, and local, state, and national nurse practitioner organizations.^[34] ACNP proved to be a critical organization in the nurse practitioner community. It provided the identity and strength necessary to unite the profession and move the campaign forward.^[43]

Rallying the Troops and Gaining the Prize

ACNP encouraged nurse practitioners with a message that was both educational and inspirational. Member communications were concise and timely and provided clear recommendations. Journal articles, faxes, and e-mail provided detailed instructions on whom to contact, how to contact them, and why it was important to do so.

Similar educational strategies were used to request testimonials, case studies, and demonstration projects documenting the effectiveness of nurse practitioner services. Inspirational messages kept organization members and grass-roots activists engaged, energized, and "on message." Articles dedicated entirely to political activism appeared regularly.^[23,32,35,36]

At ACNP's 1996 national meeting, the Nurse Practitioner Association of Maryland resolved that the "un-even, unfair, complex, and convoluted situation for nurse practitioner reimbursement" was no longer acceptable, and proclaimed direct reimbursement a top priority.^[38] The president of the Maryland association was chosen to lead a reimbursement task force, and nurse practitioners nationwide began to help. Funds were raised to retain a full-time lobbying firm, and ACNP members contributed time, money, and other resources.

A bit later, the Primary Care Health Practitioner Incentive Act of 1997 was introduced in the U.S. House and Senate; similar legislation had been introduced since 1974. Eighteen senators and 58 representatives cosponsored the legislation, which passed the House and Senate and was signed by President Clinton as the Balanced Budget Act of 1997. The unique contributions of individual members, professional lobbyists, and association staff all played an essential role in achieving this victory. According to the chair of the reimbursement task force, "The critical difference this year in our success came from the nurse practitioners contributing their time, resources, and energy. In the final analysis, the key to success came from them, the calls, the faxes, e-mails that applied the pressure on Congress to get the job done."^[44]

Lessons Learned and Implications for Pharmacy

The evolution of nurse practitioners, and their subsequent recognition as primary health care providers, is an excellent example of a health profession's efforts to reengineer practice and achieve change. Several strategies

were essential to the success of nurse practitioners:

1. Gaining recognition that nursing as a profession had the potential to expand its role,
2. Collecting and presenting evidence of nurse practitioners' value,
3. Establishing standards in education and credentialing,
4. Using professional organizations to empower individual practitioners, and
5. Having a passionate, persistent commitment to the cause and being willing to accept small, incremental gains over time.

Nurse practitioners had a vision that they could improve the delivery of primary care, and they worked hard to prove it. This vision converted setbacks into opportunities and opponents into advocates. The achievements of nurse practitioners were the result of an action-oriented campaign, organized by a coalition and supported by the diverse skills of its members. The strategies employed by nurse practitioners may represent a framework for pharmacists.

The modern history of pharmacy has been shaped by visionaries who saw how pharmacists could solve existing or future problems in the health care system.^[45] These leaders long believed that pharmacy had the potential for an expanded scope of practice, and they promoted such advancements as formal education and licensure standards,^b clinical pharmacy, and pharmaceutical care. Today, highly skilled pharmacists are participating in collaborative drug therapy management.

Over the past 10 years, the body of literature supporting pharmacists' role in clinical care has expanded enormously. Medical journals have begun to document that pharmacists have the potential to decrease errors, costs, and the demand on emergency and primary care physicians while improving patient outcomes.^[46- 49] This evidence has also been cited by the Institute of Medicine and the Medicare Payment Advisory Committee.^[50,51]

Because of the financial burden on the elderly posed by prescription medicines, Congress is considering the addition of prescription drug coverage to Medicare. This potential expansion of the program is made more significant by the baby boomers who will become eligible for Medicare starting in 2010.

Every patient seen in any practice setting represents an opportunity to demonstrate the value of pharmacy beyond the stereotype of the dispensing pharmacist. Policymakers relying on the traditional image of pharmacists may have a difficult time understanding the necessity of provider status. Now more than ever, the professional activities of pharmacists in every practice setting should support the vision of pharmaceutical care.

Pharmacists work not only in community and hospital pharmacies but also in government agencies, congressional offices, academic institutions, managed care organizations, and pharmaceutical companies. These pharmacists have diverse skills in pharmacoconomics, research, policy analysis, sales and marketing, and corporate leadership. The profession has never had more opportunity to demonstrate and communicate the value of pharmacists.

The recent expansion of the Pharmacist Provider Coalition (PPC) is evidence that pharmacists are taking advantage of this opportunity. The members of the coalition now represent pharmacists in nearly every practice setting. The Medicare Pharmacist Services Coverage Act, introduced in the 107th Congress by Senator Tim Johnson (D-SD), and the Medication Therapy Management Act, introduced by the same senator in the 108th Congress, further support the commitment of pharmacists to improving the quality and decreasing the cost of patient care.

Pharmacists have made progress toward achieving provider status. Future research and advocacy efforts should focus on how the profession and PPC can organize pharmacists in all settings.

Pharmacists are the health professionals specifically trained to dispense prescription medications and provide a wealth of other pharmaceutical services.^[52] The evidence supporting the role of the pharmacist in collaborative drug therapy management is growing. An increasing reliance on medications in the treatment of chronic disease further

supports the importance of pharmacists in improving health care quality and decreasing health care costs. A variety of factors have made safe, effective medication use a national priority.

PPC, like ACNP before it, has an excellent opportunity to organize, motivate, and support pharmacists in their efforts to achieve provider status. Ultimately, however, the activism and commitment of individual pharmacists will determine the success of this effort.

^bThe doctor of pharmacy degree was recently established as the sole professional degree for pharmacists. Pharmacy school graduates must become licensed to practice pharmacy; this process is regulated at the state level by boards of pharmacy. Licensed pharmacists may gain additional education and training through postgraduate residencies and fellowships. The Board of Pharmaceutical Specialties provides a voluntary process for licensed pharmacists to demonstrate advanced education, experience, knowledge, and skills in a particular specialty practice area. In some practice settings, such as Department of Veterans Affairs medical centers, residency, fellowship, and board certification may provide pharmacists with additional privileges beyond those provided by licensure.

Conclusion

The experience of nurse practitioners in obtaining Medicare provider status offers valuable lessons for pharmacists as they pursue the same goal.

Sidebar: Examples of Legislators' Testimonials in Support of Nurse Practitioners.

We simply cannot afford to ignore the quality care of which nurse practitioners and clinical nurse specialists have proven they are capable...Medicare patients in these areas are unable to receive home visits or utilize local community satellite offices staffed with nurse practitioners. Rather they are required to travel miles to see a physician. As a result, many patients forgo preventive health care and wait to seek care until they become so ill that they must be hospitalized or seek care in more expensive emergency rooms. Nurse practitioners and clinical nurse specialists have proven that they are able to provide high-quality, cost-effective primary care in all settings...It is foolish to restrict their ability to provide primary care services to the elderly based on setting or geographic location, and I urge your consideration and support of this bill. (U.S. Sen. Ernest Hollings [D-SC], Statements on Joint Bills and Resolutions. Primary Health Care Practitioner Incentive Act of 1997. S. 370, 105th Cong., 1st Sess. [1997])

I am aware of a particular case in North Dakota where an elderly woman was suffering from pneumonia and was in need of medical treatment. Her community did not have a hospital, so she went to a group practice center that was staffed by nurse practitioners on a daily basis, but only had a physician available periodically. It just so happened that the day she needed care the physician was not available. The nurse practitioner could have provided the elderly woman with the care she needed but because Medicare does not provide coverage for services by nurse practitioners in this type of a setting, the elderly woman had to drive 70 miles to the nearest available physician. Nurse practitioners and clinical nurse specialists will not replace physicians. By recognizing the services provided by these health care professionals, however, the Medicare Program can shore up some of the gaps in access to services. A recent OTA study shows that the quality of care provided by nurse practitioners and clinical nurse specialists is no less than the quality of physician services provided for similar ailments. Not only do nurse practitioners and clinical nurse specialists provide quality care for what they are qualified to deliver, but they do so in a cost-effective manner. I believe that it is time that the Medicare Program recognize the contribution nurse practitioners and clinical nurse specialists can make to improving access to health care services. These professionals are qualified to provide quality care and it only makes sense that their services be utilized. (U.S. Sen. Byron Dorgan [D-ND], Extension of Remarks. Rural Nursing Incentive Act of 1990. H. Rep. 4041, 101st Cong., 2nd Sess. [1990])

In short, better utilization of advanced practice nurses can save money. Nurse practitioners serving in outpatient medical clinics can reduce hospital stays for their patients by 50 percent. Effective utilization of a nurse practitioner can increase the productivity of a solo practice physician by approximately 70 percent. To illustrate this point in dollars and cents, one study found that for 58 tasks, the average bill was \$8.13 when performed by a nurse practitioner and over \$16 when performed by a physician. I am appalled at the disparities in our health care system that allow the poor and elderly to go without health care. Nurses in advanced practice can play an important role in addressing these disparities by providing quality care in a cost-effective manner. It is time for Medicare and HCFA to recognize the important contributions of advanced practice nurses by reimbursing them directly. (U.S. Rep. Bill

Richardson, [D-NM], Extension of Remarks. Rural Nursing Incentive Act of 1990. H. Rep. 4041, 101st Cong., 2nd Sess. [1990])

References

1. Pharmacist Provider Coalition. Frequently asked questions. www.improvingmedicationuse.com (accessed 2003 Jul 16).
2. Title XVIII of the Social Security Act of 1935, 42 U.S.C. §1395 and §1396 (1999).
3. Balanced Budget Act of 1997, Pub. L. No. 105-33.
4. Report to the Congress: Medicare payment to advanced practice nurses and physician assistants. Washington, DC: Medicare Payment Advisory Commission; 2002 Jun.
5. Division of Nursing, Bureau of Health Professions. The registered nurse population: findings from the national sample survey of registered nurses. Washington, DC: U.S. Department of Health and Human Services; 1996.
6. Baer ED. Philosophical and historical bases of advanced practice nursing roles. In: Mezey MD, McGivern DO, eds. Nurses, nurse practitioners: evolution to advanced practice. 3rd ed. New York: Springer; 1999:72.
7. Ford L. Nurse, nurse practitioners: the evolution of primary care. *Image J Nurs Sch.* 1986; 18:177-8.
8. Ford L. Nurse practitioner: history of a new idea and predictions for the future. In: Aiken LH, Gortner SR, eds. Nursing in the 1980's: crises, opportunities, challenges. Philadelphia: Lippincott; 1982.
9. McGivern DO, Mezey MD. Advanced practice nursing: preparation and clinical practice. In: Mezey MD, McGivern DO, eds. Nurses, nurse practitioners: evolution to advanced practice. 3rd ed. New York: Springer; 1999:4.
10. Elder R, Bullough B. Nurse practitioners and clinical nurse specialists: are the roles merging? *Clin Nurse Spec.* 1990; 4:78-84.
11. McGivern DO. The evolution of primary care nursing. In: Mezey MD, McGivern DO, eds. Nurses, nurse practitioners: the evolution of primary care. Boston: Little, Brown; 1986.
12. Nichols BL. Nurse practitioners: the American experience. *Wis Med J.* 1997; 96(6):16-8.
13. Mendenhall R, Repicky P, Neville R. Assessing the utilization and productivity of nurse practitioners and physician assistants: methodology and findings on productivity. *Med Care.* 1980; 18:609-23.
14. Morris SB, Smith DB. The distribution of physician extenders. *Med Care.* 1977; 15: 1045-57.
15. Alongi S, Geolot D, Richter L et al. Physician and patient acceptance of emergency nurse practitioners. *JACEP.* 1979; 8:357-9.
16. Congressional Budget Office. Physician extenders: their current and future role in medical care delivery. Washington, DC: U.S. Government Printing Office; 1979 Apr.
17. Record J, McCally M, Schweitzer S et al. New health professions after a decade and a half: delegation, productivity, and costs in primary care. *J Health Polit Policy Law.* 1980; 5:470-97.
18. Sox HC. Quality of patient care by nurse practitioners and physicians' assistants: a ten-year perspective. *Ann Intern Med.* 1979; 91:459-68.
19. Division of Health Care Services, Institute of Medicine. Nursing and nursing education: public policies and private actions. Washington, DC: National Academy Press; 1983.
20. Office of Technology Assessment. Nurse practitioners, physician assistants, and certified nurse-midwives: a policy analysis. Health technology case study 37, OTA-HCS-37. Washington, DC: U.S. Government Printing

Office; 1986.

21. Avorn J, Everitt DE, Baker MW. The neglected medical history and therapeutic choices for abdominal pain. A nationwide study of 799 physicians and nurses. *Arch Intern Med*. 1991; 151:694-8.
22. Mundinger MO, Kane RL, Lenz ER et al. Primary care outcomes in patients treated by nurse practitioners or physicians. *JAMA*. 2000; 283:59-68.
23. Mundinger MO. Advanced-practice nursing -- good medicine for physicians? *N Engl J Med*. 1994; 330:211-4.
24. Position paper on advanced clinical nursing. 1986. Chicago: National Council of State Boards of Nursing; 1986.
25. Position paper on advanced clinical nursing. 1993. Chicago: National Council of State Boards of Nursing; 1993.
26. Position paper on advanced clinical nursing. 2002. Chicago: National Council of State Boards of Nursing; 2002.
27. Sullivan-Marx EM, Mullinix C. Payment for advanced practice nurses: economic structures and systems. In: Mezey MD, McGivern DO, eds. *Nurses, nurse practitioners: evolution to advanced practice*. 3rd ed. New York: Springer; 1999:345-68.
28. Wysocki S. Rural health care: a challenge and opportunity for nurse practitioners. *Nurse Pract Forum*. 1990; 1(2):68-70.
29. Sharp N. Medicaid reimbursement introduced for all NPs and CNSs. *Nurs Manag*. 1995; 26(7):88-9. News.
30. S. 3644, H. Rep. 15867 (93rd Congress, 2nd Sess., 1974).
31. Rural Health Clinic Act of 1977, Pub. L. No. 95-210.
32. Omnibus Budget Reconciliation Act of 1989, Pub. L. No. 101-239.
33. S. Rep. 2103, H. Rep. 4963 (102nd Congress, 2nd Sess., 1991).
34. American College of Nurse Practitioners. ACNP history. www.nurse.org/acnp/facts/history.shtml (accessed 2001 Jul 2).
35. Wysocki S. Nurse practitioners: experts in patient care, experts for health care policy. *Nurse Pract Forum*. 1990; 1(1):6-8.
36. Bull J, Sharp N, Wakefield M, eds. *The nurses' directory of Capitol connections*. 5th ed. Fairfax, VA: George Mason University Center for Health Policy, Research and Ethics; 2000.
37. Wysocki S. The physician payment re-view commission considers the value of nurse practitioner services. *Nurse Pract Forum*. 1990; 1(3):126-7.
38. Sharp N. The power of nurse practitioners. *Nurse Pract*. 1997; 22(2):141-7.
39. Sharp N. It's politics, not policy...people! *Nurs Manag*. 1995; 26(12):18-9.
40. Sharp N. The 21st century belongs to nurse practitioners. *Nurse Pract*. 2000; 25(4):99-100.
41. Sharp N. If you build it, they will come. *Nurse Pract*. 1996; 21(9):127-9.
42. Pearson L. Survey shows NPs support unified umbrella organization. *Nurse Pract*. 1993; 18(2):9-10.
43. Sharp N. American College of Nurse Practitioners: experiment in democracy. *Nurs Manag*. 1995; 26(1):22-3.
44. American College of Nurse Practitioners. Nurse practitioners victorious in budget bill; ACNP grassroots effort

pays off. www.nurse.org/acnp/medicare/pr970813.shtml (accessed 2001 Jul 2).

45. Harvey A. K. Whitney Award lectures. Bethesda, MD: ASHP Research and Education Foundation; 2001.
46. Leape LL, Cullen DJ, Clapp MD et al. Pharmacist participation on physician rounds and adverse drug events in the intensive care unit. *JAMA*. 1999; 282:267-70.
47. Chiquette E, Amato MG, Bussey HI. Comparison of an anticoagulation clinic with usual medical care: anticoagulation control, patient outcomes, and health care costs. *Arch Intern Med*. 2003; 158: 1641-7.
48. Gattis WA, Hasselblad V, Whellan DJ et al. Reduction in heart failure events by the addition of a clinical pharmacist to the heart failure management team: results of the Pharmacist in Heart Failure Assessment Recommendation and Monitoring (PHARM) study. *Arch Intern Med*. 1999; 159:1939-45.
49. Bednall R, McRobbie D, Duncan J et al. Identification of patients attending accident and emergency who may be suitable for treatment by a pharmacist. *Fam Pract*. 2003; 20(1):54-7.
50. Kohn LT, Corrigan JM, Donaldson MS, eds. To err is human: building a safer health system. Washington, DC: National Academy Press; 1999:183.
51. Report to the Congress: Medicare coverage of non-physician providers. Washington, DC: Medicare Payment Advisory Commission; 2002 Jun:21-6.
52. Bureau of Health Professions, U.S. Health Resources and Services Administration. Report to Congress. The pharmacist workforce: a study of the the supply and demand for pharmacists. Rockville, MD: U.S. Department of Health and Human Services, 2000; HRSA inventory no. BHP00090.

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