

Nurse Practitioners and Nurse Midwives Provide Quality, Cost Effective Care but Barriers to their Practice Decrease Patient Access to Care

A White Paper by the Kentucky Coalition of Nurse Practitioners and Nurse Midwives

The purpose of KCNPNM is to establish an association to assist Advanced Practice Registered Nurses (APRNs) in the delivery of accessible and affordable health care to the people of Kentucky.

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Introduction

Nurse practitioners (NPs) and nurse midwives (NMs) are committed to providing quality health care that is accessible. However, unnecessary practice barriers exist that prevent them from practicing within the full scope of their practice and education; thus reducing patient access to care. Extensive research has been conducted over almost half a century documenting that NPs and NMs provide excellent care in a safe and cost efficient manner. The studies were performed based on rigorous research standards and the results have been frequently replicated and indicate the care provided by NPs and NMs is equivalent to, and in some studies exceeds, physician care.¹⁻⁴ In fact, no research to date has produced negative results about the care provided by NPs and NMs.

To provide an idea of the scope of the research that validates the excellence of care provided by nurse practitioners and nurse midwives, this paper includes a wide range of sources. In addition to sources in the nursing literature, research indicating positive outcomes is found in the medical literature and from the United States government.¹⁻¹¹

Kentucky ranks higher than the nation as a whole in cardiovascular disease, diabetes, cancer, and infant mortality.^{12, 13} Kentucky has 81 counties and regions that are medically underserved.¹⁴ It is imperative that access to health care be increased so that the health of Kentuckians is improved. Nurse practitioners and nurse midwives have proven that they can provide quality services in a cost efficient manner. After almost half a century of scrutiny, the research bears this out. Efforts must now focus on removing barriers to practice that prevent these health care providers from improving access to care.

The Profession

Nurse practitioners and nurse midwives are advanced practice registered nurses (APRNs) who provide primary and specialty health services. They practice in ambulatory, acute and long term care settings. They also serve as researchers and consultants. Nurse practitioners and nurse midwives diagnose and treat acute and chronic health problems and they are experts on disease prevention and health promotion. Nurse practitioners and nurse midwives prescribe medications, treatments, and therapeutic devices and they order and interpret diagnostic tests. Kentucky NPs and NMs are recognized as primary care providers by Medicaid and they may have hospital privileges.

Kentucky nurse practitioners and nurse midwives are licensed independent providers. They autonomously provide health care services to patients and refer patients for specialty care when necessary. In Kentucky, NPs and NMs are not required to have physician supervision in order to practice. Currently, they are required to collaborate with a physician only in order to prescribe medications. The requirement for collaboration applies solely to the prescribing of medication.

Nurse practitioners have been providing primary care in the U.S. and Kentucky for over 40 years and nurse midwives have been providing care in Kentucky for over 80 years. In Kentucky, APRNs have been authorized to prescribe non scheduled drugs for 15 years and scheduled drugs (controlled substances) since the 2006 General Assembly granted that authority. They have demonstrated that they are safe prescribers. Countless studies have shown beyond a doubt that these health care practitioners provide quality care, improve health outcomes and have high consumer ratings.

In June 2009, there were 2,323 nurse practitioners and nurse midwives licensed in Kentucky.¹⁶ As of January 9, 2011, the number of NPs and NMs had increased to 2,749.¹⁷ Nurse practitioners practice in 114 out of 120 Kentucky counties.¹⁷ Of Kentucky's counties, 77 rural counties are designated as Health Provider Shortage Areas (HPSA).¹⁴ There are also four (4) HPSAs located within urban areas. Nurse practitioners are practicing in 75 of the 81 HPSAs.^{14, 17}

Quality of Care

Data from the Medicare Payment Advisory Commission (MEDPAC), which advises Congress on issues affecting Medicare, from an analysis of 2006 Medicare claims for 100% of Medicare beneficiaries, determined that Nurse Practitioners provided a greater percentage of primary care services than any other practitioner or provider type including; Family Physicians, Internal Medicine, Pediatric Medicine and Physician Assistants.⁵

It is well documented throughout the literature in randomized clinical trials and meta-analyses that there are no major differences in patient outcomes when treated by an NP or a physician. Furthermore, several studies indicate higher patient satisfaction with NP care over physician (MD) care.

Physician groups frequently call into question the education of nurse practitioners. They insist on comparing NP training with that of a physician and completely discount the four (4) years of nursing education NPs receive prior to entering graduate school. The Institute of Medicine, in its newly released report, The Future of Nursing: Leading Change, Advancing Health (2011), has reviewed a large body of research indicating that despite years of additional physician training, there is no measurable difference in the quality of basic primary care services provided by a NP as compared with those provided by a physician.¹⁵

The American College of Physicians understands the role NPs play in health care reform. In a statement to *Medscape Medical News*, 2009, Michael S. Barr, MD, MBA, FACP, ACP vice president of practice advocacy and improvement, stated, "The College recognizes the important role that NPs play in meeting the current and growing demand for primary care, especially in underserved areas. As trained healthcare professionals, physicians and NPs share a commitment to providing high-quality care."

- Many studies show that patients have a high or very high level of satisfaction with NP Services.
- The Congressional Office of Technology Assessment (OTA) reviewed studies comparing nurse practitioners and physicians. The result of the review indicated nurse practitioners appear to have more effective communication, counseling, and interviewing skills than physicians (1986).⁷
- In a meta-analysis review of 38 NP studies and 15 NM studies comparing NP, NM, and

physician care, it was found that there was greater compliance with treatment, increased satisfaction, and higher resolution of pathological conditions in treatment provided by NPs than physicians. Patients of NPs were more compliant than physicians' patients in taking medications, keeping appointments, and following recommended behavioral changes. NMs used less anesthesia and technology and patient outcomes were the same as physicians.¹⁸

- Regarding measurement of diagnosis, treatment, and patient outcomes, several studies indicate that the quality of care provided by NPs is equal to that of physicians.¹⁻⁴
- The quality of care provided by nurse practitioners in an HIV clinic was equivalent to the care provided by HIV expert physicians.⁴
- NPs tend to provide a more relaxed atmosphere where patients feel more comfortable to ask questions that they regard as too trivial for physicians.⁴

Cost-Effectiveness

According to a Citizens Advocacy Center Report, economic theory holds that increasing the supply of a service, decreases the cost of the service. Therefore, increasing the supply of primary care providers will decrease the cost of primary care.¹⁸ Keeping in mind that Kentucky NPs and NMs have always practiced autonomously, deleting the requirement for a collaborative agreement for prescriptive authority will save the cost of compensating a physician for signing the agreement and increase the number of available primary care providers.

Nurse practitioners and nurse midwives are not advocating a two-tiered system where they are paid less for the same work or where care provided by nurse practitioners is seen as second class. As already noted and supported by research, care provided by NPs and NMs is equivalent to that provided by physicians. Cost savings would be realized by expanded primary care services and a healthier population.

A Rand Report published in August of 2009 projected that more widespread use of nurse practitioners with expanded scopes of practice could result in \$4.2 to \$8.4 billion in savings for the Commonwealth of Massachusetts.¹⁹

Cost Effectiveness—Education

- The cost of educating APRNs is much less than physicians. APRNs are building upon the four years of basic nursing education already completed in their undergraduate studies. Though annual tuition and fees (in addition to living expenses) are comparable for APRNs and for medical students either at public or private institutions (approximately \$35,000/year public vs. \$60,000/year private), APRN master degree students who attend programs full time will complete them in two years compared to a completion time of four years for medical students.²¹
- There is a sharp decline in medical students entering the field of primary care.²¹ It takes eight years to educate a primary care physician. There are 2,749 nurse practitioners and nurse midwives in Kentucky now, who are highly qualified to participate in the planning and implementation of healthcare reform programs.¹⁷

Cost Effectiveness—Salary Comparison

- Salary Comparison: In 2008, Median salaries of nurse practitioners in Kentucky were \$81,397 compared to \$167,970 for family and general practice physicians, \$156,010 for pediatricians and \$144,020 for psychiatrists.^{23, 24}

Cost Effectiveness—Treatment Comparison

- In 1981 and 1986, the Office of Technology Assessment analyzed NP and NM practice and found that these APRNs provided medical care that was equivalent to or exceeded physician care at a lower total cost than physicians.^{10, 25}

Prenatal Care

- One -half of 173 high-risk prenatal patients received home care from advanced practice nurses resulting in 78% fewer infants deaths, 11 fewer preterm births, fewer prenatal and infant re-hospitalizations. Health Care Savings in this group – included 750 hospital days saved for a total savings of \$2,496,145.²⁶
- Prenatal care provided to women with high risk pregnancies by nurse midwives resulted in fewer hospital days and savings over the infants' first year of life.²⁷

Disease Management

Nurse Practitioners and Nurse Midwives emphasize disease prevention and health maintenance in the care that they provide. They are educated to consider all patients in the cultural context of family and community. Because of their focus on individualized patient education and their excellent communication skills, patients are more likely to understand the information they receive related to self-care and medication management. The recipients of APRN services are less likely to require costly emergency room treatment and in-patient hospital care.²⁸⁻³⁴ Given the dramatic rise in the number of Americans with chronic diseases like diabetes, heart failure, hypertension and COPD, these conditions are best addressed with the structured anticipatory guidance APRNs are so skilled at providing. Increasing the number of APRNs employed both in primary care and in diseased-focused specialty care can be expected to result in major cost-savings for Kentucky and for the United States as a whole.

Study Results

- NPs coordinated the care of high-risk patients with heart failure, both inpatient and outpatient. These patients had fewer hospital readmissions –saving \$4,845 per patient, with improved Quality of Life.²⁷
- NP care resulted in 38% savings in Medicare Costs. Six Philadelphia academic and community hospitals participated in this study.²⁸
- Hospitalized heart failure patients managed by NPs had lower costs with lowered length of stays (LOS) and had excellent outcomes, lower mortality, and met quality indicators.²⁹
- NPs provided quality care for Community Acquired Pneumonia (CAP) and COPD based on the Center for Medicaid and Medicare Services performance measures. NP intervention model for patients with CAP and COPD resulted in 90% compliance with all CMS measures and significant reductions in LOS and cost savings (LOS decreased by 1.34 days; \$2,576 savings per case).³⁰
- Cost savings occurred without an increase in pneumonia readmissions.³¹
- Studies of nurse-managed in-patient care demonstrated decreased patient stays, decreased ventilator days, improved heart failure outcomes and decreased complications such as skin lesions, urinary tract infections and pneumonia. Comparison of nurse practitioner and physician management of high cholesterol following revascularization, indicated that patients in the nurse practitioner group were more likely to meet their cholesterol goals and to comply with prescribed drug regimens, resulting in decreased costs.³²

Utilization of Nurse Practitioners as Attending Providers for a State Workers' Compensation System

Results: NPs were more likely than physicians to be located in rural areas and counties with high unemployment. Injury type and severity were similar across both provider types.

- The likelihood of any time lost from work was lower for NP claims.
- The duration of lost work time and medical costs did not differ by provider type.
- Authorizing NPs as attending providers may be a cost-effective approach to address access barriers.³⁴

Utilization of Nurse Practitioners at the Worksite

- Analysis of a work-site, nurse practitioner based practice of over 4,000 employees and their dependents determined that when compared to claims from earlier years, the nurse practitioner care resulted in significant savings of \$.8 to \$1.5 million with a benefit to cost ratio of up to 15:1.³⁵

Access to Care

According to an issue brief released by the Kentucky Voices for Health (July 2010), an estimated 261,000 Kentuckians who are now uninsured will eventually have coverage through Medicaid, and 221,000 Kentucky families will receive tax credits to help purchase insurance.³⁶

What will be the impact of these dramatically-increased numbers of Kentuckians who will be seeking health care services – especially primary care services? Today, many people in urban communities experience long waiting times for appointments with a primary care physician. When calling to be seen for an acute problem, it is not uncommon to be told that no appointments are available for three (3) to four (4) weeks. Many people who are not able to obtain appointments for minor acute illnesses will seek care in the emergency room. Those who live in rural health care shortage areas may go without care until their illness become serious – and much more costly. The lack of access to primary care services will worsen as more Kentuckians obtain health care coverage.

Artificial and outdated limitations on scope of practice for nurse practitioners and nurse midwives prevent these health care professionals from providing care within the full scope of their education. “ Further, physicians, dentists and some other health professionals believe they must unite in opposition to any attempt ‘to encroach on their turf’ and lobby state legislators to stop any changes to the status quo.”²¹ Countless research studies over almost half a century have documented the excellent outcomes and high patient satisfaction with care provided by NPs and NMs. The continued blocking of legislation to allow nurse practitioners and nurse midwives to provide care within their full scope of practice will only serve to worsen access to care and drive health care costs higher.

- Nurse practitioners practice in 114 out of 120 Kentucky counties.¹⁶
- Of Kentucky’s rural counties, 77 are designated Health Provider Shortage Areas (HPSA). There are four (4) HPSA regions located in urban areas.¹⁴ Nurse practitioners are practicing in 75 of the 81 Health Professional Shortage Areas.^{14, 17}
- As of January 9, 2011 there were 2,749 nurse practitioners and nurse midwives licensed in Kentucky.¹⁷

- According to Kentucky Board of Nursing data, between 1998 and 2009 there was a 180% increase in the number of nurse practitioners and a 4% increase in nurse midwives in Kentucky.¹⁶
- The National Resident Matching Program shows that family practice physician residency positions have declined since 2004. In 2004 the total number of positions offered was 2,864 and in 2008 the number had declined to 2,636. Of the 2,636 family practice residency slots available in 2008, only 2,387 were filled.²²
- In contrast to the declining number of family practice residents, the number of graduates from NP programs nationally is growing. According to the American Academy of Nurse Practitioners' National NP Database (2009) approximately 8,000 new graduates were prepared in 2008.³⁵ This type of growth in the profession can help to meet the need for increased primary care services anticipated by the passage of the Patient Protection and Affordable Care Act.

APRN Prescribing

Kentucky APRNs were granted authority to prescribe non scheduled (legend) drugs in 1996. Since that time, the number of APRNs in the state has significantly risen and access to care for the citizens of the Commonwealth has increased.¹⁶ Kentucky APRNs have been under close scrutiny since they began prescribing and that scrutiny increased in 2006 when they were granted authority to prescribe scheduled drugs (controlled substances). Federal law requires that all licensure boards report disciplinary actions to the National Provider Data Bank (NPD). No Kentucky APRN cases of narcotic convictions or violations of drug statutes have been reported to the NPD. The Kentucky Board of Medical Licensure has reported 15 physician cases.

Kentucky All Schedule Prescriptions Electronic Reporting (KASPER) collects data about the controlled substance prescribing for all health care prescribers. In order to prescribe controlled substances, health care providers must register with the federal Drug Enforcement Agency (DEA). According to KASPER, in the first six months of 2009, APRNs accounted for 5% of the total DEA registrations in Kentucky. However, only 3% of the prescriptions for controlled substances were written by APRNs. Today, KASPER data shows that the number of APRNs with DEA registration has grown to 9.9%; yet, APRNs only prescribe 3.7% of all scheduled drugs. Since 2007, KASPER data has shown APRNs to be responsible and judicious prescribers of scheduled drugs. While the prescribing patterns for controlled substances by APRNs are similar to non-ARNP prescribers, the numbers of prescriptions written by each APRN are substantially fewer than non-ARNP prescribers.

In a study comparing the prescribing practices of psychiatrists and psychiatric NPs in a community mental health center, demographics for 5507 patients were examined. While psychiatrists and NPs prescribed similar total numbers of medications, psychiatrists prescribed more types of antidepressants and more than twice the number of benzodiazepines (a type of controlled substance) than NPs. The NPs prescribed more SSRI antidepressants and spent more time with clients during visits. ³⁶

Barriers to Access to Care

While Kentucky statutes authorize APRNs to practice autonomously and without supervision, the law does require APRNs to obtain a Collaborative Agreement for Prescriptive Authority with a physician to prescribe medications. What this means is that nurse practitioners and nurse midwives may examine patients, order and interpret tests, and diagnose and treat

patients independently, but they cannot prescribe medications without a collaborative prescribing agreement (KRS Chapter 314.011 and KRS Chapter 314.042). The requirement for a collaborative agreement for prescriptive authority has proven to be a barrier that has inhibited the ability of nurse practitioners and nurse midwives to meet the increased demand for health care services. Multiple reasons exist that prevent NPs and NMs from improving access to care.

Collaborative Prescribing Agreements

- **Limit Access to Care:** NPs and NMs are having difficulty locating physicians willing to enter into a collaborative prescribing agreement. Because of this, NPs and NMs willing to practice in underserved areas of Kentucky are not able to establish practices.
- **Limit Small Business/Practice Ownership:** NPs and NMs who want to establish a practice must pay a physician to sign a collaborative prescribing agreement. In some cases, the physicians are charging a high fee for this service, making it very difficult to open the practice.
- **Liability Concerns:** Although it has not been supported by the evidence, some physicians believe they will be held liable for the NP's or NM's practice if they sign a collaborative prescribing agreement. Therefore, they will not sign an agreement.
- **Legal Concerns/Access to Care:** Health care providers cannot legally abandon patients. Because of the collaborative prescribing requirement, Kentucky Nurse Practitioners and Nurse Midwives are placed in a precarious position if a physician decides to end the collaborative prescribing agreement. The NP and NM can no longer prescribe medications for their patients and those patients are left without needed medications. This places further limitations on patient access to care as well as removing the ability of the NP or NM to practice their profession and to provide their own livelihood.
- **Reimbursement for Services:** Kentucky NPs and NMs are considered Licensed Independent Providers (LIPs) by the Kentucky Board of Nursing, the Joint Commission on Accreditation of Health Care Organizations (JACHO), and all the APRN certification organizations. However, requirements for a collaborative prescribing agreement are misunderstood by some insurance companies, preventing NPs and NMs from receiving reimbursement for the services they are providing.

Conclusion

The evidence indicates that nurse practitioners and nurse midwives provide quality care, improve access to care, improve health outcomes and reduce health care costs. However, patients in Kentucky are prevented from receiving the full benefits of health care provided by NPs and NMs. Current Kentucky regulations and statutes not only limit access to care and increase cost (to patients, Medicaid and insurance companies), these restrictions impede true health care reform for Kentuckians. In order to improve access, decrease costs, and improve the health of Kentuckians, practice barriers which prevent NPs and NMs from providing care within their full scope of practice and education must be removed. Therefore, the Kentucky Coalition of Nurse Practitioners and Nurse Midwives supports legislation and regulatory change to eliminate obstacles to nurse practitioner and nurse midwifery practice. Such changes would be good public policy and would increase access for Kentuckians to well-trained, cost-effective and highly skilled health care providers.

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