

White Paper: Advance Practice Nurses
Advocate for Kansas

Advance Practice Nurses: An Action Plan for the State of Kansas

Advance Practice
Task Force of Kansas

Written by Marilyn Douglass
ARNP-C
January 2010



APRN Task Force of Kansas

American College of Nurse-Midwives, Kansas Chapter

Fort Hays State University Department of Nursing

Great Plains Nurse Practitioner Society

Kansas Alliance of Advance Nurse Practitioners

Kansas Association of Nurse Anesthetists

Kansas State Nurses Association

University of Kansas School of Nursing

Washburn University School of Nursing

Wichita State University School of Nursing

**We would like to express our appreciation
to the Kansas State Board of Nursing for their contributions**

Vision

Create an environment in Kansas that enhances the public's access to safe, high quality care, preventive health services, and choice of provider through revision of the Kansas Nurse Practice Act which will allow Advanced Practice Registered Nurses to provide health care as licensed independent practitioners.



Table of Contents

	Page
Executive Summary.....	6
Kansas Health.....	6
Access to Care.....	6
Uninsured in Kansas.....	6
Decreasing primary providers.....	6
Need more primary providers.....	6
APNs are the answer.....	7
Schools are increasing enrollment.....	7
Barriers preventing full utilization of APNs.....	7
Collaboration	7
CRNA issue.....	7
Solutions.....	8
Benefits of passing legislation.....	8
Contact Information.....	9
Overview.....	11
State health care Kansas.....	11
Access to care.....	11
Uninsured in Kansas.....	11
Underserved areas.....	11
Decreased family physician supply.....	11
Medicaid cuts.....	11
Statute-mandated collaboration.....	12
Co-signing charts is not effective.....	12
Communication is the Key.....	13
AMA argues education	13
Malpractice Insurance.....	14
APNs are part of the solution.....	14
Cost effective.....	14
Example of Community Health Center.....	15



Advanced Practice Nurses Advocate for Kansas Health

Patient satisfaction.....15

ACP position paper regarding APNs.....16

Pearson Report.....16

APNs promote coordinated primary care.....16

General Information APNs.....17

Definition of four roles.....17

Education.....17

APN Workforce in Kansas.....18

History of APNs in Kansas.....18

Overview of APNs: the four categories.....19

Nurse Practitioners.....19

History.....19

Definition.....20

Services Provided.....20

Education.....20

Affordability.....20

Quality Outcomes.....21

Reimbursement and enrollment.....21

Certified Nurse-Midwives.....21

History.....21

Definition.....22

Services Provided.....22

Education.....22

Affordability.....22

Quality Outcomes.....22

Reimbursement and enrollment.....23

Certified Registered Nurse Anesthetist.....24



Advanced Practice Nurses Advocate for Kansas Health

History.....24

Definition.....24

Education.....24

Service Provided.....25

Affordability.....25

Quality Outcomes.....26

Reimbursement and enrollment.....26

Clinical Nurse Specialist.....26

History.....26

Definition.....27

Education.....27

Services Provided.....27

Affordability.....28

Quality Outcomes.....28

Reimbursement and enrollment.....29

Contact Information.....30

References.....31



White Paper: Kansas Advanced Practice Nurses Contribution to Health Care

Executive Summary

*As we embrace
healthcare reform,
338,000 uninsured
Kansans need
primary care.*

Overall, Kansas is ranked 23rd in state rankings by indicators of access to affordable care, quality of care, prevention and treatment, avoidable hospital use and costs, and healthy lives. In 2008, there were 338,000 uninsured Kansans or 12.4% of the population. The numbers of uninsured have increased since 2004, when the uninsured rate was 10.7% or 286,000 Kansans.¹ The Kaiser Family Foundation reported that there were 343,281 Kansans living in primary care health professional shortage areas; this equaled to 12.3% of Kansas population². Compounding this problem is that medical school graduates have chosen specialty careers more than general practice programs, decreasing the supply of primary care physicians.³

Health care reform calls for increasing coverage and access to health care for all, strengthening wellness and prevention care while ensuring quality health care delivered safely, timely, effectively and in a patient-centered environment⁴. The challenges of an aging population, chronic disease, workforce shortages and a call for primary prevention-oriented healthcare have contributed to the need for more primary care providers^{5,6}.

*Advanced
Registered Nurse
Practitioners are
expert primary care
providers.*

Advanced Practice Nurses (APNs) are registered nurses who have advanced education, certification and clinical training, and serve as health care providers in a broad range of primary care, acute care and outpatient settings. APNs are expert primary care providers, practice in an environment that welcomes collaboration and communication with multiple health care disciplines⁷.

Advance Practice Nurses Step Up to the Challenge

In a time when there are shortages of primary care physicians, schools of nursing have increased their enrollments and have increased the



Advanced Practice Nurses Advocate for Kansas Health

*Schools of Nursing
have produced
more advanced
practice nurses
each year since
2004.*

numbers of graduating advanced practice nurses every year since 2004. Currently there are 3159 advanced practice nurses in Kansas⁸. An advanced registered nurse practitioner or ARNP is a professional nurse who holds a certificate of qualification from the board of nursing to function as a professional nurse in an expanded role. There are four categories of advanced registered nurse practitioners: Clinical nurse specialist, nurse anesthetist, nurse-midwife and nurse practitioner.

Barriers Preventing Full Utilization of Advanced Practice Nurses

Kansas was ranked 27th in the nation by a panel of experts in the areas of consumer access to APNs as providers. Factors included the environment affecting reimbursement and nurse practitioner (NP) patients' access to related healthcare services; and the environment affecting the NP patients' access to prescription medications. In consumer choice rankings, Kansas received a letter grade of 'C' indicating that barriers exist that impedes consumer access to healthcare services.⁹

*An unfair implied
liability is
concerning to
physicians who
sign protocols with
APNs.*

These barriers are not based on patient-safety concerns or on any evidence that patient safety is in question. These barriers do prevent full utilization of advanced practice nurses. As a result, Kansans miss out on the full benefit of more timely access to health care and lower cost. The barriers to APN practice in Kansas include:

- Current statute language suggests that APNs are to collaborate with physicians on medical decisions. From a legal standpoint, the interpretation entangles physicians into being liable for decisions made by the APN. APNs are educationally prepared to formulate plans of care and accept responsibility for the consequences of such plans of care. APNs believe that physicians should not have to accept this implied liability.
- Current statute language requires a responsible physician to sign an agreement of collaboration with an APN. Physicians are less likely to enter these agreements because of concern of liability. Removal of this barrier would allow two important changes to occur: APNs could maintain their own practice and therefore, increase public access to health care; secondly, liability would rightfully belong to the APN and not the physician.
- The current statute describes that each nurse practitioner would have a responsible physician sign protocols for prescribing medications. From a legal standpoint, the physician becomes liable for the decisions made by the APN regarding medications prescribed. It is unfair that physicians would be liable for decisions made by another provider. APNs prefer to be



Advanced Practice Nurses Advocate for Kansas Health

accountable for their own decisions, and take this responsibility of prescribing medications seriously.

- Nurse anesthetists historically have been managing anesthesia care for several decades. Current regulatory language has been recently interpreted to exclude the anesthetist as being able to give orders for anesthesia care to registered nurses.
- Historically, nurse practitioners were thought of as “physician extenders,” implying that the NP works under the physician. Any medication or test ordered by the APN was labeled under the physician’s name. This practice still occurs today. Delays in reviewing and interpreting diagnostic tests occur because of this incorrect labeling of test results. Medications are labeled with the collaborating physician’s name and the APN’s name. Delays in refilling medications occur when there is confusion about who has ordered the medication.

Recommended Solutions

- **Amend Kansas Nurse Practice Act to define Advanced Practice Nurses as licensed independent practitioners who practice based on current education, training and experience.**
- **Kansas State Board of Nursing to write rules and regulations that demonstrate the commitment of advanced practice nurses to provide quality health care:**
 - **Require malpractice insurance for licensure and renewal of license.**
 - **Require a minimum of advanced practice continuing education units for renewal of license.**
- The language proposed in the bill is taken from the Consensus Model for APRN Regulation and **is endorsed by the Kansas Board of Nursing**. This document defines APRN practice, describes the APRN regulatory model, identifies the titles to be used, defines specialty, describes the emergence of new roles and population foci, and presents strategies for implementation. Key to this model is language that defines advanced practice nurses as, “independent practitioners for practice at the level of one of the four APRN roles.”¹⁰

If legislation is passed, the benefits to Kansans will be:

- Increased number of primary care providers that can add access to health care.
- Be poised for health care reform. As health care evolves it is evident that there will be a need for patient-centered medical homes that provide services to patients and families with an emphasis on prevention of illness and education. APNs, by virtue of their training



Advanced Practice Nurses Advocate for Kansas Health

that emphasizes prevention, wellness and education, are ideal providers for medical homes.

- Physicians will benefit because the implied liability when signing a protocol with an APN will be removed from statute.
- Medications and diagnostic tests will be labeled with the correct provider advanced practice nurse rather than the collaborating physician, eliminating time delays of reviewing and interpreting results, and refilling medications.
- APNs, like all other medical providers, will continue to consult and communicate with physicians to provide quality-evidence-based interventions for patients. It is not necessary for statute to dictate collaboration.
- Allow CRNAs to manage anesthesia cares within their education, training and scope of practice.

For more information please contact:

Ronda Eagleson ARNP
Kansas APRN Task Force
Chairperson
785-304-2760
reagleson@embarqmail.com

Susan Bumsted MN, RN
Past President Kansas
State Nurses
Association
Wichita, KS
316-516-6325
sbumsted@cox.net

Kansas State Nurses Association
1109 SW Topeka Blvd
Topeka, KS 66612
785-233-8638
ksna@ksna.net

Cara Busenhart CNM
American College of
Nurse Midwives, Kansas
Chapter
913-544-1672
cbusenhart@kumc.edu

Nancy Whitson CRNA
President Kansas
Association of Nurse
Anesthetists
785-478-2113
nawhitson@hotmail.com

See the entire document for more information.



References

1. U.S. Census Bureau. "Historical health insurance tables." *U.S. Census Bureau*. March 2009. <http://www.census.gov/hhes/www/hlthins/historic/index.html> (accessed Dec. 7, 2009).
2. Kaiser Family Foundation. (2008). *State health facts*. Retrieved Nov 29, 2009, from Kaiser Family Foundation: <http://www.statehealthfacts.org/profileind.jsp?cat=8&sub=156&rng=18>
3. National Residency Matching Program. (2008). *Historical reports*. Retrieved March 2009, from National Residency Matching Program: <http://nrmp.org/data/historicalreports.html#resultbystate>
4. Institute of Medicine. (2001). Improving the 21st century health care system. In C. o. America, *Crossing the Quality Chasm* (pp. 41-64). Washington, D.C.: National Academy Press.
5. Baucus, M. (2008, Nov 12). *Call to action health reform 2009*. Retrieved June 2009, from Senate Finance Committee: <http://finance.senate.gov/healthreform2009/finalwhitepaper.pdf>
6. *Health care reform; the president's plan*. (2009, Feb 24). Retrieved Oct 10, 2009, from The Whitehouse: <http://www.whitehouse.gov/issues/health.care/>
7. American Academy of Nurse Practitioners Think Tank. (2007, December 5). *Legislation/Practice*. Retrieved May 16, 2009, from American Academy of Nurse Practitioners: <http://www.aanp.org/>
8. Kansas State Board of Nursing. (2009, Aug). *Nurse practice act statutes and regulations*. Retrieved Jan 2, 2010, from Kansas State Board of Nursing: <http://www.ksbn.org>
9. Lugo, N. O. (2007). Ranking state NP regulation: practice environment and consumer healthcare choice. *The American journal for nurse practitioners* , 11 (4), 8-24.
10. APRN Consensus Work Group & the National Council of State Boards of Nursing APRN Advisory Committee. (2008, July 7). *Consensus model for APRN regulation: Licensure, accreditation, certification & education*. Retrieved June 8, 2009, from American Nurses Association.



Overview

The Status of Healthcare in Kansas

In 2009, the Commonwealth Fund, an independent, private foundation that provides research on health issues, practice and policy, ranked Kansas as 23rd in state rankings by indicators of access to affordable care, quality of care, prevention and treatment, avoidable hospital use and costs, and healthy lives. Kansas' status declined from 18th in 2007.¹

Having health insurance is one of the defining factors of access to health care. The likelihood to seek and receive health care is assumed to be better when one has health insurance. Over 338,000 Kansans do not have health insurance. Having health insurance is likely to increase the ability to receive preventive cares such as mammograms, colon cancer screenings, flu shots and prostate screenings. Overall, Kansas ranked 25th in state rankings for access to health care based on these indicators and rankings:

- Percent of adults (ages 18 to 64) that are insured- 19th
- Percent of children (ages 0 to 17) that are insured- 31st
- Percent of at-risk adults who have visited a doctor for a routine check-up in the past two years – 31st
- Percent of adults without a time in the past year when they needed to see a doctor but could not because of cost -18^{th.2}

The Kaiser Family Foundation reported that there were 343,281 Kansans living in primary care health professional shortage areas in 2008 or 12.3% of the total Kansas population.³ According to the Kansas Department of Health and Environment, 90 of 105 counties in Kansas are designated as medically underserved, meaning that there is less than 1 primary care physician per 2695 population in the area.⁴

According to the National Resident Matching Program historical data, Kansas Medical Schools reported filling rates of their family practice resident openings in a range of 71-75% for the years 2003 to 2006. In the same period of time, all other specialty residency program filling rates were in the range of 87-96%. Filling rates of family practice residency openings improved in the past three years with a reported range of 86-94%, similar to all other specialty residency openings.⁵

Unfortunately, the picture becomes grimmer with the announcement of 2010 state budget cuts. The Medicaid and CHIP programs which provide medical care,



Advanced Practice Nurses Advocate for Kansas Health

Medicaid system cannot afford to be without APNs. APNs need to be designated as providers for medical homes.

mental health care, and long term care to 315,000 Kansas children, elderly and disabled, will be reduced by an additional \$1.13 million in administrative cuts in addition to the ten percent across-the-board cut in provider reimbursement rates already calculated out of the 2010 budget.⁶ KHPA Board Chairman Joe Tilghman said, “We know these cuts will impose significant hardships on people who rely on Medicaid and CHIP for their health coverage, as well as the providers who serve those people.”

Points of Discussion

Statute-mandated Collaboration Implies Physician Involvement and Liability

In some states, there is no legal requirement for physician involvement in advanced practice nurse (APN) practice. However, in the majority of states, there is some legal requirement for physician involvement. That involvement may be “supervision,” “collaboration,” or some other term. The collaborating physician can be unfairly linked to a medical plan of care, even though the plan was developed and implemented by the APN. Carolyn Buppert, nurse practitioner/attorney, explains that when there is some element of physician involvement, there is risk of implication in a lawsuit.⁷

In Kansas, current statute and regulation direct APNs to practice according to collaborative agreements concerning three aspects of the scope of practice. The three aspects are (1) an agreement that describes the relationship between the APN and collaborating physician, (2) an agreement of collaboration regarding the medical plan of care of patients and (3) an agreement of protocol regarding prescribing medications. APNs are qualified to provide healthcare according to education and experience in their areas of practice. APNs recognize when cares are required beyond their expertise and willingly refer or consult other healthcare providers, physicians and specialists. **Regulations requiring collaboration are not necessary and may create a legal entanglement of liability.**⁸

Physicians are concerned about the liability of collaborative practice agreements with advanced practice nurses. When an APN seeks a physician collaborator for her/his practice, oftentimes the physician expresses concern regarding how their malpractice liability and premium will be affected.

Supervision by Co-signing Charts is Ineffective

An editorial published on the American College of Physicians website described a physician’s frustration with supervision of NPs. The center of the concern has to do with the method of supervision. At the hospital, physicians had to sign charts for the NPs and assume the liability for their diagnoses, whether or not they actually saw the patients. Medical decisions and therapies were initiated



Advanced Practice Nurses Advocate for Kansas Health

by the time the physician reviewed the chart. This “hind-sight” supervision did not increase quality of care nor did it encourage collaboration.⁹

Communication is the Key between Professionals

Like their physician colleagues, APNs, take responsibility for their patient’s health care needs and arrange care with other qualified health care professionals as needed. APNs welcome communication with multiple health care disciplines. This culture of care allows APNs to readily coordinate and integrate a patient’s care.¹⁰ Four research studies concluded that collaboration in the form of effective communications complement the delivery of health care.¹¹⁻¹⁴ Both professions, physicians and APNs, expect and enjoy effective communications regarding practice issues. Legal mandates of collaboration do not strengthen health care and are difficult to interpret in practice. What is more important is that provider seeing the patient makes decisions about patient care, arranges for multidisciplinary care when needed, and keeps the patient at the center of the health care decisions.

American Medical Association (AMA) Argues Education Hours are Not Comparable to Medical Degree Education

In an AMA report describing nurse practitioner issues, the following statement introduces the commentary:

“Without a doubt, limited licensure health care providers (APNs are included in this group) play an integral role in the delivery of health care in this country. Efficient delivery of care, by all accounts, requires a team-based approach, which cannot exist without inter-professional collaboration between physicians, nurses and other limited licensure health care providers. With the appropriate education, training and licensing, these providers can and do provide safe and essential health care to patients.”¹⁵

It is no secret that clinical hours between curriculums of advanced practice nurses, physicians, osteopaths and physician assistants all vary greatly. Yet all of these health care providers serve the public in the practice and art of healthcare. Specialty curriculums add more variability and complicate comparisons between professions. It is more appropriate then to investigate the governing boards of the medical professions.

Advanced practice nurses are governed by state boards of nursing. It is the charge from the National Council of State Boards of Nursing to the state boards to regulate APNs based on the “fundamental principle of protection of the health, safety, and welfare of the public.”

Further, APN curriculums receive accreditation from two major organizations, the Commission of Collegiate Nursing Education (CCNE) and the National League for Nursing Accreditation Commission (NLNAC). The minimum required

APNs seek communications with other health care providers to coordinate quality care or refer for other services.

Kansas State Board of Nursing protects the health, safety and welfare of the public.



Advanced Practice Nurses Advocate for Kansas Health

components of the master's degree in nursing curriculum are set by the American Association of Colleges of Nursing.¹⁶ Both credentialing bodies reference these requirements in their accreditation of APN curriculums.

In Kansas, as of 2002, a master's degree or higher is the requirement for a certificate of advanced practice. The Board recognizes curriculums accredited by national nursing organizations whose certification standards have been approved by the board as equal to or greater than the corresponding standards established by the board for obtaining a certificate to practice as an advanced registered nurse practitioner.¹⁷

Malpractice Liability

Kansas advanced practice nurses are not mandated to carry malpractice insurance. Although in a 2008 survey, 95% of Kansas APNs do carry malpractice insurance, either self-provided, or employer-provided.¹⁸ Professional organizations recognize that nurse practitioners need access to affordable and adequate malpractice insurance to protect themselves and their patients.¹⁹⁻²²

The Kansas High School Athletic Association has maintained that only physicians, chiropractors or physician assistants can perform and sign high school sport participation physical examinations.²³ Their explanation has been that APNs are not mandated to carry malpractice insurance, which is a concern for their liability and the student's protection. The solution would be to require malpractice insurance for licensure and renewal of licensure of APNs. Once the statute is enacted, KHSAA would be invited to re-consider their mandate and allow APNs to perform and sign sport participation physicals.

If legislation is passed, APNs should be authorized to sign sport participation physicals.

Advance Practice Nurses are a Solution

APNs are Cost-Effective

Nurse practitioners are a proven response to the evolving trend towards wellness and preventive health care driven by consumer demand. For over four decades, APNs have been proven to be cost-effective providers of high-quality care.¹⁰

Over 25 years ago, the Office of Technology Assessment (1981) conducted an extensive case analysis of nurse practitioner practice and reported that NPs provided equivalent or improved medical care at a lower total cost than physicians. NPs in a physician practice were found to have the potential to decrease the cost per patient visit by as much as 33%, particularly when seeing patients in an independent, rather than complementary manner.²⁴

A recent study of 26 capitated primary care practices with approximately two million visits by 206 providers determined that the practitioner labor costs per



Advanced Practice Nurses Advocate for Kansas Health

visit and total labor costs per visit were lower in practices where NPs and physician assistants were used to a greater extent.²⁵

Community Health Centers are one Example

A present-day successful example of the concept of nurse practitioner primary health care is exemplified in the Community Health Centers established in underserved areas of the United States. Community Health Centers provide health care to underserved areas of the nation and are open to all residents, regardless of insurance status or ability to pay. In Kansas, there are 37 sites designated as Community Health Centers; located in high-need areas identified as having elevated poverty, higher than average infant mortality and where few physicians choose to practice. Nurse practitioners, physician assistants and certified nurse midwives provide over 50% of the primary medical care to the patients served in the community health centers of Kansas. Primary health care services provided include care of chronic medical conditions such as hypertension, diabetes, heart disease, asthma, depression, mood disorders; and preventive health services include health supervision ages 0-11years, immunizations, physical examinations, pap smears, and diagnostics. In Kansas community health centers, 110,455 visits were provided by nurse practitioners, physician assistants and midwives compared to 83,776 visits provided by physicians in the year 2007. Community health centers are staffed with teams of health care providers including nurses, dentists, dental hygienists, and behavioral health specialists. Other services provided include pharmacy, case management and enabling services such as education, transportation and translation. Such a system of health care is cost-effective. In Kansas, the community health centers **saved over \$159 million dollars** in the cost of avoidable emergency department visits, and generated over 35 million dollars as economic benefits for local communities.²⁶

APNs, as providers in the community health center model, saved over \$159 million in avoided emergency visits.

Patient Satisfaction and Outcomes are Similar

To date, no studies have shown an adverse effect on consumers when care is delivered by an APN. In fact, the opposite is true- many studies have shown the favorable effects on healthcare outcomes when care is delivered by NPs.

A literature review validates that patients are equally satisfied with cares provided by APNs and physicians.²⁸⁻³¹ There are no significant differences in reported health care status between patients cared for by nurse practitioners versus those cared for by physicians.²⁸⁻³¹ Patients cared for by advanced practice nurses had at least equivalent patient outcomes when compared to patients cared for by physicians.²⁹⁻³⁰

Nurse practitioners completed investigations of abnormal parameters comparable to physicians.³² At an end point of two years patients cared for by advanced nurses and physicians did not differ statistically in health status or patient outcomes.²⁹



Advanced Practice Nurses Advocate for Kansas Health
American College of Physicians Position Paper on Nurse Practitioners

American College of Physicians recognizes APNs as medical home care providers.

Recognition of the value of patient-centered care shared by nurse practitioners and physicians was expressed in a position paper from the American College of Physicians (ACP). Acknowledging that nurse practitioner service has evolved over the past 20 years because of changes in scopes of practice, national health care access, prescriptive authority, and third-party reimbursement changes, the ACP “acknowledges that NPs play a critical role in improving access to care.”³³

Pearson Report of Malpractice Claims

Advanced practice nurses are safe health care providers with few incidents of malpractice. Occurrence ratios of providers are obtained by dividing the total number of each group of providers by the total number of accumulated malpractice and adverse actions in the National Data Practitioner Bank against that group of providers. Nationally, 1 in 173 NPs had a claim filed against an NP for the time frame 1990 to May 2008. For the same time period, 1 in 4 Osteopaths, and 1 in 4 MDs had claims filed against them. These ratios reflect the safe patient care that nurse practitioners have been providing over the past 20 years.

In an 18 year span, only 4 malpractice cases filed against APNs in Kansas.

In Kansas, there were four filings of malpractice claims against nurse practitioners in the 18 year span between Sept. 1990 and May 2008. In the same time frame, 236 DO/Interns/Residents were filed and 2665 filings submitted for MDs/Interns/Residents.³⁴

Nurse Practitioners: Promoting access to Coordinated Primary Care

Health promotion is a core competency for all nurse practitioners.

For many decades, the focus of health care has been on the management of acute episodic illness. There needs to be a shift from episodic illness visits to a system of cares that include health promotion, disease prevention and chronic illness management. The Institute of Medicine recommends that health care be patient-centered care. Care that is respectful of and responsive to individual patient preferences needs and values and ensures that patient values guide all clinical decisions.³⁵ Nurse practitioners already provide patient-centered cares with an emphasis on health promotion. Health promotion is so important that it is considered a core competency for all nurse practitioners.³⁶ In a recent meta-analysis of research conducted between 1996 and 2002 which focused on the substitution of physicians by advanced practice nurses, no appreciable differences were found between doctors and NPs in health outcomes, cost, resource utilization, or use of clinical guidelines. However, patient satisfaction was higher with NP-led care, and NPs tended to spend more time with clients, give more information and recall patients more frequently.³⁷ It is this type of communication and interactions between the nurse practitioner and the patient that is considered patient-centered and is effectively practiced by nurse practitioners.



Advanced Practice Nurses in Kansas General Information

Definition

Advanced registered nurse practitioners shall function in an expanded role to provide primary, secondary, and tertiary health care in the ARNP's category of advanced practice. **Current regulations state that, "Each ARNP shall be authorized to make decisions about advanced practice nursing needs of families, patients, and clients and medical decisions based on an authorization for collaborative practice with one or more physicians." Current statute states, "An advanced registered nurse practitioner may prescribe drugs pursuant to a written protocol as authorized by a responsible physician."**³⁸ There are four categories of advanced registered nurse practitioners:

1. Clinical nurse specialist- provides care for specific patients or clients or specific populations, or both, utilizing a broad base of advanced scientific knowledge, theory of health and nursing care.
2. Nurse anesthetist- Provide a plan of anesthesia, induce and maintain anesthesia, support life functions, take actions appropriate to patient responses upon the order of a physician or dentist.
3. Nurse-midwife- Provides health care for women, focusing on gynecological needs, pregnancy, childbirth, the postpartum period, care of the newborn, and family planning.
4. Nurse practitioner- provides health care for individuals by managing health problems encountered by patients and clients. Provides health promotion and maintenance, disease prevention, and independent nursing diagnosis. May prescribe medications based on protocols jointly authorized by a responsible physician and the nurse practitioner. May obtain a DEA registration number to prescribe controlled substances pursuant to a protocol.

Within these categories there may be subspecialties based on the APN's training, the patients served, or the conditions to be treated by the APN. In a recent survey of Kansas advanced practice nurses, there were 33 subspecialties mentioned, with the most common specialties of family practice, anesthesia, general practice, psychiatric practice, pediatric practice and women's health cited.¹⁸

Education

To be an advanced registered nurse practitioner in Kansas, the registered nurse must complete a formal, post-basic nursing education program that has been approved by the board of nursing to meet the standards for program approval established by Board regulations. As of 2002, a master's degree in nursing is the requirement to be an advanced nurse practitioner. Graduates prior to 2002 are still qualified to practice by a grandfather clause.³⁸ In Kansas approximately 92%



Advanced Practice Nurses Advocate for Kansas Health

of advanced nurse practitioners have a minimum a master's degree in nursing.¹⁸

ARNP Workforce in Kansas as of 2008

The ARNP workforce is growing in Kansas. According to statistics provided by the Kansas State Board of Nursing (2009) there are 3159 advanced registered nurse practitioners, which include the four roles of nurse practitioner, clinical nurse specialist, nurse midwife and nurse anesthetist, with an active license in Kansas. The percentage of active-licensed advanced registered nurse practitioners has risen on the average of 4.5% per year since 2004. Family practice nurse practitioners make up the majority of the nurse practitioners in Kansas, approximately 59% of the active-licensed nurse practitioners. Other specialties of nurse practitioners include acute care, adult care, neonatal, pediatrics, psychiatric and women's health which make up 36% of the total active-licensed nurse practitioners in Kansas.

*There are 3159
advanced
practice nurses
in Kansas.*

Clinical Nurse Specialists total 647 in Kansas. Five percent of clinical nurse specialists work in family practice, 37% work in community health, adult health and gerontology, and 27.5% work in psychiatric health. Approximately 25% of clinical nurse specialists work in hospital settings in pediatrics, maternal child and medical/surgical settings.

Kansas nurse midwives are advanced practice registered nurses who have completed graduate education to provide specialized health care to women regarding: pregnancy and prenatal care, childbirth, labor support, birth care at home, birth center or hospital setting, care during the postpartum period, post delivery newborn care, family planning and contraception, gynecological care through the life span, and primary care being able to prescribe medications, order diagnostics and laboratory tests.³⁹ There are 792 licensed nurse midwives in Kansas. In 1999, The University of Kansas began a Master's level nurse midwife program which has contributed to the growth of midwives in Kansas. Since 2004, the number of nurse midwives has increased by 510, or approximately 19% over the four year period.

Certified registered nurse anesthetists (CRNA's) are licensed registered professional nurses who have obtained, through additional education and successful completion of a national examination, certification as anesthesia nursing specialists. In 2008 Kansas State Board of Nursing reported there are 792 active-licensed CRNA's in Kansas.

Advanced Practice Nursing: Historical Perspective

Advanced Practice Nursing in Kansas is regulated by the Kansas State Board of Nursing. Statutory authority allows the board to grant certification for advanced practice in four categories: Nurse Practitioner, Clinical Nurse Specialist, Certified Nurse Midwife and Certified Registered Nurse Anesthetist. The Kansas State Board of Nursing was constituted in 1913. In 1949, the licensure of professional



Advanced Practice Nurses Advocate for Kansas Health

nurses became mandatory in Kansas. Certification for advanced nursing practice was instituted in 1976. Legislative authority to write new regulations for advanced practice certification was granted in 1983 and regulations were written and adopted in 1984. In 1986, legislation authorized the practice of nurse anesthesia and the Board of Nursing was given the authority to authorize Registered Nurse Anesthetists to practice in Kansas in 1988. The Registered Nurse Anesthetist Act was revised in 1996.

Extensive changes in the Nurse Practice Act specific to nurse practitioners occurred in 2000. In this revision, language for the “expanded role” was defined with limitations and restrictions. Authorization to obtain Drug Enforcement Agency (DEA) certification and number and rules for prescribing pursuant to protocol were delineated. This revision further separated the Registered nurse anesthetist as authorized under separate statute. Faculty, preceptor and curriculum requirements for advanced practice nursing were established. In 2007, curriculum requirements were modified (effective July 1, 2009), so advanced registered nurse education included three semester hours each in advanced pathophysiology, advanced health assessment and a clinical component of at least 500 clinical hours for each clinical track.⁴⁰

Overview of Advance Practice Nurses: Four Categories

Nurse Practitioners

History

The Nurse Practitioner role evolved in response to a nationwide shortage of healthcare services in the mid-1960's. The first Nurse Practitioner program was developed as a Master's degree curriculum, based on the nursing model, at the University of Colorado's School of Nursing. This pioneer program was co-founded jointly by Loretta Ford, RN, a nursing faculty member and Henry Silver, MD, a pediatrician. The first program specialty was in pediatrics. Other healthcare specialties were added shortly after as programs developed across the country to provide primary healthcare services to large, underserved populations. In 1971, the Secretary of Health, Education, and Welfare issued recommendations that supported these nurses' roles as PCPs. Federal monies were then allocated to increase Nurse Practitioner programs nationally. By the mid-1970's, there existed more than 500 certificate programs that prepared nurses to provide primary care. During the late 1970's and 1980's, programs shifted from certificate to Masters degree preparation as certifying bodies required a Masters Degrees. In the 30 years since the first nurse practitioners were educated, a number of nurse practitioner specialties have developed. They include family practice, pediatrics, women's health, psychiatry, acute care, and community/public health. In 2000, Nurse Practitioners were legally able to



Advanced Practice Nurses Advocate for Kansas Health

practice in every state. There are 49,500 nurse practitioners authorized to practice in the United States.

Definition

Nurse practitioners are health care providers who practice in a variety of rural and urban health care settings such as clinics, hospitals, emergency/urgent care sites, private physician or NP practices, nursing homes, retail-based clinics, schools and colleges, and public health departments. Nurse practitioners are trained to provide primary care, outpatient, acute and/or long term care. Nurse practitioners have graduate education and training in both the nursing and medical models for the diagnosis and treatment of acute and chronic diseases affecting diverse populations. Nurse practitioners practice under the rules and regulations of the Nurse Practice Act of Kansas.

Services Provided

Nurse practitioners provide health care to a diverse population and focus on the whole person while performing a wide array of clinical services, including performing histories and physicals, diagnosing and treating health conditions such as diabetes, heart disease, high blood pressure, infections and injuries, ordering and interpreting diagnostic studies, x-rays, lab tests and rehab services. In addition, nurse practitioners prescribe medications, treatments and non-pharmacological therapies.

In addition to providing primary health care, the nurse practitioner's approach to care emphasizes health promotion through disease prevention and focuses on increasing the patient's participation in his or her own care, primarily through patient and family education.

Education

In Kansas, as of 2002, it is a requirement that nurse practitioners have a master's degree in nursing to be a nurse practitioner. Some nurse practitioners have doctorate degrees. Most nurse practitioners are nationally certified in their specialty area. National certification indicates that the NP has successfully passed a nationally recognized, accredited competency test of knowledge. Maintenance of a certification requires attendance of ongoing continuing education opportunities.

Affordability

Multiple studies demonstrate the cost effectiveness of nurse practitioners as primary health care providers. The Office of Technology Study reported that the nurse practitioner cost per care episode was at least twenty percent less than traditional medical provider cost with the same population.²⁴ In a study of advanced nurse practitioner case management of a population of at risk, complex clients of health service, a cost savings of \$64,450 was realized in



Advanced Practice Nurses Advocate for Kansas Health

decreased inpatient admissions and decreased length of stay of the hospital admissions. Emergency visits decreased by 20%.⁴¹

The median total compensation for primary care physicians can be \$57,000 to \$135,000 more compared to the mean salary of nurse practitioners.⁴² NP preparation costs 20-25% that of physician preparation.⁴³ When productivity measures, salaries, and costs of education are considered, NPs are cost-effective providers of health services.

Quality Outcomes

In the over 40-year history of the nurse practitioner profession, a multitude of studies have demonstrated that nurse practitioners have performed as well as physicians with respect to patient outcomes, proper diagnosis, management of specified medical conditions and level of patient satisfaction.^{28-31,44-47}

Reimbursement and Enrollment

Congress authorized the Medicare program to reimburse nurse practitioners in the Balanced Budget Act of 1997, at 85% of the physician rate. Medicaid reimbursements are calculated on a rate per unit basis. Commercial insurers reimburse health care providers on a fee-for-service basis. Each company has its own policies on reimbursement of NP services. Managed Care Organizations (MCOs) reimburse only those providers admitted to the plans' provider panels. MCOs do not admit every physician to provider panels and may or may not admit NPs to provider panels. Commercial MCO policies on empanelment of NPs vary.

Certified Nurse Midwives

History of Midwives in Kansas

The first nurse-midwifery attended birth, registered by State Vital Records, took place in the mid-1970s at Fort Riley by Judie Wika, CNM. In 1979, state regulations describing the role of advanced practice nursing, which includes nurse-midwifery, created opportunity for collaborative practice with physicians. Therefore, in 1980, Dr. Josie Norris, Libby Rosen and Ginger Breedlove established The Holistic Birth and Growth Center (now known as the **Birth and Women's Center**) in Topeka and employed the first certified nurse-midwife, Joan Denny, to practice in Kansas. This center was the first free-standing urban birth center in Kansas. Now there are three with a rural birth center located in **Yoder, KS**, and another birth center in **Kansas City, Kansas**. As nurse-midwifery became more popular in Kansas, midwives began attending births in the hospital setting as well under collaborative practice with physicians. Nurse-midwives practice throughout Kansas under the advanced practice nursing act;



Advanced Practice Nurses Advocate for Kansas Health

hold state and national leadership positions; and publish widely in professional journals.

Definition

A certified nurse-midwife (CNM) is a registered nurse who is educated in the two disciplines of nursing and midwifery, who possesses evidence of certification according to the requirements of American College of Nurse-Midwives.

Services Provided

Certified nurse-midwives provide services that include pregnancy and prenatal cares, childbirth, labor support, birth care at home, birth center or hospital settings. Postnatal cares include post delivery newborn care and care during the postpartum period. Certified nurse-midwives prescribe medications, prescribe family planning and contraception. Cares also include gynecological exams and cares through the lifespan. Certified nurse-midwives order and interpret diagnostic laboratory tests and radiologic exams.

Education

Certified nurse-midwives (CNMs) in Kansas possess a graduate education from a pre-accredited or accredited university. Certified nurse-midwives must pass a rigorous national exam conducted by the American Midwifery Certification Board. To maintain certification CNMs must attend continuing education opportunities.

Affordability

Research has shown that nurse midwifery care is usually provided at significantly less cost compared to physician rates. Nurse midwifery care tends to reduce cesarean section rates, a much more expensive procedure than vaginal birth, while maintaining similar outcomes. The lower costs associated with nurse-midwifery care are due to: lower rates of technological intervention, shorter lengths of stay in hospitals and lower payroll costs.⁴⁹ Costs are lowered even further when a birth center is used rather than a hospital. The midwife/birth center collaborative model cost the payor 21% or \$1,122 per birth less (\$4,432 vs. \$5,464) for pregnancy related services.⁴⁸

Quality outcomes

Nurse-Midwifery has been practiced in the United States since the 1920s. Numerous studies, both prospective and retrospective, have documented the



Advanced Practice Nurses Advocate for Kansas Health

safety, efficacy and desirability of nurse-midwifery care to various populations in a variety of settings.

Birth certificate data were examined for vaginal deliveries between 35 and 43 weeks gestation. Adjustments were made for sociodemographic and medical risk factors. The outcomes were compared between physicians and nurse-midwives. Neonatal mortality risk was 33% lower with CNM-attended births; the risk of low birth weight babies was 31% lower with CNM-attended births; the risk of infant mortality was 19% lower with CNM-attended births.⁵⁰

In a study published in *Obstetrics & Gynecology*, which compared obstetrician/gynecologists, family physicians, and certified nurse-midwives who delivered prenatal care, “Certified nurse-midwives recorded a standard of practice that most closely matched that recommended by American College of Obstetricians and Gynecologists.”⁵¹

In a comparative data study of practice patterns of CNMs and Obstetrician/Gynecologists (OB/GYNs), the results support the use of CNMs to maintain quality services and satisfaction, while lowering costs through expansion of collaborative services. CNMs provided education or counseling in 86% of their visits, compared to 47% of visits by OB/GYNs. The length of face-to-face time for an OB/GYN visit was shorter compared to CNMs, with the majority of the visits lasting 16-30 minutes.⁵²

Reimbursement and Enrollment

In Kansas, CNMs receive Medicaid reimbursement at 75% of physician rates. Commercial insurers are not mandated to reimburse CNMs for their services. Better utilization of midwives and midwifery services, and enhancement of collaborative midwife/physician practices could improve health care access for women, which would be especially beneficial for those who are underserved and vulnerable.⁵²

As a consequence of the rising liability crisis and the litigious nature of the practice of obstetrics, CNMs face considerably higher professional liability insurance costs than other advanced practice nurses. At a time when obstetricians are closing their obstetrics practices due to the rising costs associated with litigation, CNMs may provide the solution to the looming shortage of providers, but only if affordable liability insurance or alternatives to insurance are available.



Advanced Practice Nurses Advocate for Kansas Health Certified Registered Nurse Anesthetists

History

The practice of anesthesiology by nurses has been recognized by the courts as the practice of nursing since 1917.

Nurses were the first professional group to specialize in and provide anesthesia services in the United States (U.S.) in the 1880s. From that time to present, nurse anesthetists have administered the majority of all anesthetics in all settings nationwide. Nurse anesthetists carried the major burden of military anesthesia services for the U.S. during every armed conflict of the 20th Century. During World War I and II, they trained other nurses and physicians from multiple countries as anesthetists. In fact, it was not until after World War II that sizable numbers of physicians entered the field.

Today, some 27,000 CRNAs are practicing in all states throughout the U.S. There are around 420 CRNAs actively practicing in Kansas, making up 70% of all providers of anesthesia. CRNAs administer more than 65% of the 26 million anesthetics given to patients each year in America, practicing in every type of setting in which anesthesia is delivered, working with and without anesthesiologists. They are the sole providers of anesthesia services to 70% of America's rural population---about 65 million people. In Kansas, approximately 110 of the 132 hospitals (83%) providing surgical services rely solely on nurse anesthetists for anesthesia care.

Definition

Certified Registered Nurse Anesthetists (CRNAs) are licensed professional registered nurses who have obtained, through additional education and successful completion of a national examination, certification as anesthesia nursing specialists. CRNAs are qualified to make independent judgments relative to all aspects of anesthesia care, based on their education, licensure, and certification.

Education

The most substantive difference between CRNAs and anesthesiologists is that prior to anesthesia education, anesthesiologists receive medical education while CRNAs receive nursing education. However, the anesthesia part of the education is very similar for both providers. They are both educated to use the same anesthesia process in the provision of anesthesia and related services. In a survey of practice conducted among anesthesiologists and CRNAs in 1986 by the



Advanced Practice Nurses Advocate for Kansas Health

Center for Health Economics Research, it was found that CRNAs perform the same range of anesthesia tasks and activities as anesthesiologists.

To be a certified registered nurse anesthetist requires a Bachelor of Science in Nursing (or other appropriate baccalaureate degree); a minimum of one year experience in critical care nursing; and completion of two to three years of an accredited Master's degree, which includes both classroom and clinical studies, on the administration of anesthesia. Certification is required by successfully completing the certification examination administered by the American Association of Nurse Anesthetists (AANA) Council on Certification. Maintenance of certification requires attendance to appropriate continuing education offerings.

In Kansas, CRNAs carry malpractice insurance and participate in the Kansas Health Care Stabilization Fund.

Services Provided

CRNAs administer anesthesia for all types of surgical cases, use all anesthetic techniques, and practice in every setting in which anesthesia is delivered: traditional hospital suites and obstetrical delivery rooms; offices of dentists, podiatrists, ophthalmologists, and plastic surgeons; ambulatory surgical centers; health maintenance organizations; preferred provider organizations; US military and public health services; and Veterans Administration medical facilities. They provide services as employees of hospitals and other health facilities, physician anesthesia groups, as employees or partners in CRNA groups or as private solo practitioners.

Affordability

Many managed care plans and commercial insurers include CRNAs to provide high-quality anesthesia care with reduced expense to patients. Substantial cost savings are realized when considering salary comparisons between CRNAs and Anesthesiologists. The cost-efficiency of CRNAs helps to control escalating health care costs. CRNAs are highly cost-effective, quality anesthesia providers on the basis of educational costs, cost of service, productivity, and substitutability for more expensive providers. Whether working with or without anesthesiologists, they serve as the key to cost savings in the provision of anesthesia and anesthesia related services, whether within operating rooms or in expanded service areas such as pain management clinics, postoperative suites and critical care units.⁵³



Quality Outcomes

Nurse anesthetists have been providing quality anesthesia care in the United States for more than 100 years. In administering more than 65% of the 26 million anesthetics annually, CRNAs have compiled an enviable safety record. No studies to date have demonstrated that there is a difference in anesthesia patient care outcomes based on type of anesthesia provider, that is, a nurse anesthetist or anesthesiologist.

In a review of 1.14 million obstetric patients from 369 hospitals in seven states, no differences of obstetric anesthesia complications or mortality rates between hospitals that use only CRNAs compared with hospitals that use only anesthesiologists.⁵⁴

A review of 404,194 Medicare surgical cases hospitalized between 1995 to 1997 in 22 states reported no statistical differences in mortality for CRNAs and anesthesiologists working individually. There was no statistically significant difference in the mortality rate for CRNAs and anesthesiologists working together versus CRNAs or anesthesiologists working individually. There was no statistically significant difference in the mortality rate for hospitals without anesthesiologists versus hospitals where anesthesiologists provided or directed anesthesia care.⁵⁵

A 1994 Minnesota Department of Health team completed a legislatively mandated study concerning anesthesia care in that state. The department concluded that "there are no studies, either national in scope or Minnesota-specific, which conclusively show a difference in patient outcomes based on type of provider."⁵⁶

Reimbursement and Enrollment

Enacted in 1965, Medicare reimburses hospitals under Part A for "reasonable costs" of anesthesia services. The Omnibus Budget Reconciliation Act of 1986 established direct reimbursement for CRNAs under Medicare Part B, effective January 1989.

Clinical Nurse Specialists

History

In the early 1900's the term "nurse specialist" described a nurse who had achieved a more autonomous practice based on additional training following completion of the basic nursing education. The CNS role was conceived by



Advanced Practice Nurses Advocate for Kansas Health

nurses and has evolved within the framework of the hospital-based nursing department and school of nursing. Roles were developed in hospital settings to primarily improve the quality of care delivered to patients. Notable nurse educators Dr. Peplau, Ester Lucille Brown and Frances Reiter promoted specialization in nursing because of the rate of knowledge increase and public need. The first CNS program was established in 1954 at Rutgers University. This program prepared CNSs for advanced practice in the area of psychiatric nursing. Acceptance of CNSs within the practice setting grew rapidly during the 1960s to early 1980s, and the number of nurses practicing in this role grew rapidly. The functional characteristics of the role were varied and included clinician, educator, researcher, consultant, manager, advocate and change agent. In the late 1980s concerns over health care costs led to a reduction in the number of CNS positions, and many of these persons sought other positions in administration or education.⁶³⁻⁶⁴

Definition

The CNS has a unique advanced practice role to integrate care across the continuum and through three spheres of influence: patient, nurse, system. The three spheres are overlapping and interrelated but each sphere possesses a distinctive focus. In each of the spheres of influence, the primary goal of the CNS is continuous improvement of patient outcomes and nursing care. Key elements of CNS practice are to create environments through mentoring and system changes that empower nurses to develop caring, evidence-based practices to alleviate patient distress, facilitate ethical decision-making, and respond to diversity. The CNS is responsible and accountable for diagnosis and treatment of health/illness states, disease management, health promotion, and prevention of illness and risk behaviors among individuals, families, groups, and communities.⁵⁷

Education

A graduate degree, either masters or doctorate, from a program that prepares CNS is the credential for entry into CNS practice. A certification program was developed by the American Nurses Credentialing Center for the core competencies of the CNS. CNSs may also take other specialty certification tests for advanced practice nurses.

Services Provided

CNSs are clinical experts in the diagnosis and treatment of illness, and the delivery of evidence-based nursing interventions.⁵⁸ Specifically, CNSs are:

- Clinical experts in the diagnosis and treatment of illness in specialties across the continuum of care from neonatology to gerontology, including, but not limited to, pediatrics, women's health, oncology, mental health, cardiology, wellness and prevention.



Advanced Practice Nurses Advocate for Kansas Health

- Clinical nurse specialists are providers of evidence-based care in many settings including hospitals, rehabilitation facilities, outpatient offices and private clinics, and nursing homes.
- Across many settings, CNSs coordinate care.
- Clinical nurse specialists are often leaders and facilitators of change among large groups and organizations facilitating quality improvement, patient safety and lower health care costs.
- CNSs have clinical nursing expertise with a focus on assisting patients in health promotion or the prevention or resolution of illness and with medical diagnosis and treatment of disease, injury and disability. In addition to providing direct patient care,
- CNSs influence the outcomes of care by providing expert consultation for nursing staff and by indentifying and implementing improvements in health care delivery systems. CNSs are an integral part of the health care team and help to coordinate the care received by patients.⁵⁹

Affordability

High quality and cost-effective care are the hallmarks of CNs practice; by focusing their practice on assessing the overall care of patients, they are able to make significant contributions toward the measurement of individual and population health improvements, effective resource utilization and establishment of best practices.

Quality Outcomes

Clinical nurse specialists use their clinical expertise, consultation and collaboration skills to lead system-wide efforts to improve the quality of care.

A University of Pennsylvania CNS developed and led a safe and cost effective care model to reduce the length of stay l the neonatal intensive care unit through the early discharge of very low birth weight infants. The mean hospital costs were 27% less than the control group and the mean physician charges were 22% less. The net savings for each infant was \$18,560.⁶⁰

A gerontological CNS introduced a discharge planning program for elderly patients that were compared with a usual care group. The intervention group had fewer readmissions, fewer total days of re-hospitalization and lower readmission rate.⁶¹

A study explored if there were differences between hospital units with and without CNSs and showed shorter lengths of stay and about 1/3 the number of complications in units with CNSs.⁶²



Advanced Practice Nurses Advocate for Kansas Health Reimbursement and Enrollment

Although CNSs may receive Medicare reimbursement for some services, the CNS's primary contribution is as part of a team approach of care delivery, so it is imperative to evaluate their contribution by examining the fiscal wellness of a health care system. Numerous studies have demonstrated that the care delivered by CNSs is cost effective:

- Recognition of safe and cost-effective care by a CNS related to the early discharge of very low birth weight infants with follow-up.
- Demonstration of differences in length of stay and highly significant cost savings with care managed by Clinical Nurse Specialists.
- Nurse managed inpatient program for patients with chronic mental disorders that resulted in reduction of physician time and pharmaceutical costs.



For additional Information please contact:

Ronda Eagleson ARNP
APRN Task Force Chairperson
785-448-1624
rmeagleson@saint-lukes.org

Susan Bumsted MN RN
Past President KSNA
316-516-6325
slbumsted@cox.net

Nancy Whitson CRNA
President Kansas Association of Nurse Anesthetists
785-478-2113
nawhitson@hotmail.com

Cara Busenhart CNM
American College of Nurse Midwives, Kansas Chapter
913-544-1672
cbusenhart@kumc.edu

Alice Bell CNS
Via Christi Regional Medical Center
316-733-1751
alice_bell@via-christi.org

Kansas State Nurses Association
1109 SW Topeka Blvd
Topeka, KS 66612
785-233-8638
ksna@ksna.net



References

1. U.S. Census Bureau. (2009, March). *Historical health insurance tables*. Retrieved Dec. 7, 2009, from U.S. Census Bureau: <http://www.census.gov/hhes/www/hlthins/historic/index.html>
2. McCarthy, D. H. (2009, Oct). *Aiming higher: results from a state scorecard on health system performance, 2009*. Retrieved Dec 8, 2009, from The Commonwealth Fund: <http://www.commonwealthfund.org/Content/Publication/Fund-Reports/2009/Oct/2009-State-Scorecard.aspx>
3. Kaiser Family Foundation. (2008). *State health facts*. Retrieved Nov 29, 2009, from Kaiser Family Foundation: <http://www.statehealthfacts.org/profileind.jsp?cat=8&sub=156&rng=18>
4. Kansas Dept. of Health and Environment. (2008). *Primary care health professiona underserved areas report kansas 2008*. Retrieved Dec 12, 2009, from Kansas Department of Health and Environment: <http://www.kdheks.gov/olrh/download/PCUARpt.pdf>
5. National Residency Matching Program. (2008). *Historical reports*. Retrieved March 2009, from National Residency Matching Program: <http://nrmp.org/data/historicalreports.html#resultbystate>
6. Kansas Health Policy Authority.(2009). Programs serving children, the elderly, and disabled are cut to balance budget. Retrieved Dec. 12, 2009, from Kansas Health Policy Authority: <http://www.khpa.ks.gov/news/2009/download/12042009a.pdf>
7. Buppert, C. (2004). *Nurse practitioner's business practice and legal guide*. Sudbury, Mass.: Jones and Bartlett Publishers.
8. Buppert, C. (2007). Implications for collaborating physicians. *The Journal for nurse practitioners* , 306-308. doi: 10-101/j.nurpra.2007.03.006.
9. Wade, G. (1998, April). *ACP Internist*. Retrieved July 3, 2009, from American College of Physicians: <http://www.acpinternist.org/archives/1998/04/eroding.htm>
10. American Academy of Nurse Practitioners Think Tank. (2007, December 5). *Legislation/Practice*. Retrieved May 16, 2009, from American Academy of Nurse Practitioners: <http://www.aanp.org/>
11. Bailey, P. J. (2006). Family physician/nurse practitioner: stories of collaboration. *Journal of Advanced Nursing* , 381-391.
12. Fletcher, C. B. (2007). Nurse practitioners' and physicians' views of NPs as providers of primary care to veterans. *Journal of Nurisng Scholarship* , 358-362.
13. O'Brien, J. M. (2009). A phenomenological perspective on advanced practice nurse-physician collaboration within an interdisciplinary healthcare team. *Journal of the American Academy of Nurse Practitioners* , 444-453.
14. Running, A. H. (2008). Physician perceptions of nurse practitioners: a replication study. *Journal of the american academy of nurse practitioners* , 429-433.
15. American Medical Association. (2009). *AMA Scope of practice data series a resource comendium for state medical associations and national medical specialty societies: Nurse practitioners*. American Medical Association.
16. American Association of Colleges of Nursing. (2000). *Fact sheets*. Retrieved 2007, from American Association of Colleges of Nursing: <http://www.aacn.nche.edu/Media/FactSheets/npfact.htm>
17. Kansas State Board of Nursing. (2009, Aug). *Nurse practice act statutes and regulations*. Retrieved Jan 2, 2010, from Kansas State Board of Nursing: <http://www.ksbn.org>
18. Kansas State Nurses Association. (2009, May). Survey of Advanced Practice Nurses in Kansas.



Advanced Practice Nurses Advocate for Kansas Health

19. American Association of Nurse Anesthetists. (2010). *Cost effectiveness of nurse anesthetists*. Retrieved Jan 2, 2010, from AANA: <http://www.aana.com/aboutaana.aspx?id=4588&terms=reimbursement>
20. Kansas Midwives. (2009). *What is a midwife?* Retrieved Dec 12, 2009, from Kansas Midwives: <http://www.kansasmidwives.org>
21. American Nurses Association (2010). *Professional Liability*. Retrieved by Jan. 2010 ANA: <http://nursingworld.org>
22. National Association Pediatric Nurses.
23. Kansas State High School Athletic Association. (2009). *KHSAA Handbook*. Retrieved Dec. 12, 2009, from Kansas State High School Athletic Association. <http://www.kshaa.org/Publications/Handbook.pdf>
24. Assessment, O. o. (1981). *The cost and effectiveness of nurse practitioners*. Washington, D.C.: US Government Printing Office.
25. Roblin, D. H. (2004). Use of midlevel practitioners to achieve labor cost savings in the primary care practice of an MCO. *Health Services Research* , 607-626.
26. Kansas Health Institute. (2008, Sept.). *Fact sheet the uninsured in kansas: new data from the U.S. census bureau's current population survey*. Retrieved March 2009, from Kansas Health Institute: <http://www.khi.org/resources/Other/1213-UninsuredKHI08-10.pdf>
27. Kansas Health Institute. (2008, Sept.). *Fact sheet the uninsured in kansas: new data from the U.S. census bureau's current population survey*. Retrieved March 2009, from Kansas Health Institute: <http://www.khi.org/resources/Other/1213-UninsuredKHI08-10.pdf>
28. Dierick-van Daele, A. M. (2008). Nurse practitioners substituting for general practitioners: randomized controlled trial. *Journal of Advanced Nursing* , 391-401.
29. Lenz, E. M. (2004). Primary care outcomes in patients treated by nurse practitioners or physicians: two-year follow-up. *Medical Care Research and Review* , 332-351.
30. Munding, M. K. (2000). Primary care outcomes in patients treated by nurse practitioners or physicians: a randomized trial. *JAMA* , 59-68.
31. Shum, C. H. (2000). Nurse management of patients with minor illnesses in general practice: multicentre randomised controlled trial. *British Medical Journal* , 1038-43.
32. Hall, J. P. (1990). Performance quality, gender, and professional role a study of physicians and nonphysicians in 16 ambulatory care practices. *Medical Care* , 489-501.
33. American College of Physicians. (2009). *Nurse practitioners in primary care*. American College of Physicians. Philadelphia PA (Available from American College of Physicians, 190 N. Independence Mall West, Philadelphia, PA 19106): American College of Physicians.
34. Pearson, L. (2009, Feb). The Pearson report. *The American Journal for Nurse Practitioners* , pp. 4-82.
35. Institute of Medicine. (2001). Improving the 21st century health care system. In C. o. America, *Crossing the Quality Chasm* (pp. 41-64). Washington, D.C.: National Academy Press.
36. National Organization of Nurse Practitioner Faculties. (2006). *National Organization of nurse practitioner faculties domains and core competencies of nurse practitioner practice*. Retrieved Dec 12, 2009, from National Organization of Nurse Practitioner Faculties: <http://www.nonpf.com/NONPF2005/CoreCompsFinal06.pdf>
37. Reeves, L. H. (2009). Substitution of doctors by nurses in primary care (review). *The Cochrane Collaboration, Issue 2* , 1-26.
38. Kansas State Board of Nursing. (2009, Aug). *Nurse practice act statutes and regulations*. Retrieved Jan 2, 2010, from Kansas State Board of Nursing: <http://www.ksbn.org>



Advanced Practice Nurses Advocate for Kansas Health

39. Kansas Midwives. (2009). *What is a midwife?* Retrieved Dec 12, 2009, from Kansas Midwives: <http://www.kansasmidwives.org>
40. Kansas State Board of Nursing. (2009, Aug). *Nurse practice act statutes and regulations*. Retrieved Jan 2, 2010, from Kansas State Board of Nursing: <http://www.ksbn.org>
41. Schifalacqua, M. U. (2004). How to make a difference in the health care of a population one person at a time. *Nursing Administration Quarterly* , 28 (1), 29-35.
42. American Academy of Nurse Practitioners. (2007). *Nurse Practitioner cost effectiveness*. Retrieved Sept 2009, from American Academy of Nurse Practitioners: <http://www.aanp.org>
43. Aacn
44. Horrocks, S. A. (2002). Systematic review of whether nurse practitioners working in primary care can provide equivalent care to doctors. *BMJ* , 819-823.
45. Kelcher, H. P. (2009). Systematic reiview of the effectiveness of primary care nursing. *International Journal of Nursing Practice* , 15: 16-24.
46. Kinnersley, P. A. (2000). Randomised controlled trial of nurse practitioner versus general practitioner care for patients requesting "same day" consultations in primary care. *British Medical Journal* , 1043-8.
47. Venning, P. D. (2000). Randomized controlled trial comparing cost effectiveness of general practitioners and nurse practitioners in primary care. *British Medical Journal* , 1048-53.
48. Anderson, R. &. (1999). The cost-effectiveness of home birth. *Journal of Nurse Midwifery* , 44, 30-35.
49. Gabay, M. a. (1997). Nurse-midwifery: the beneficial alternative. *Public Health Reports* , 386-395.
50. MacDorman, M. S. (1998). Midwifery care, social and medical risk factors, and birth outcomes in the USA. *Journal of Epidemiological Community Health* , 310-317.
51. Baldwin, L. R. (1994). Do providers adhere to ACOG standards? The care of prenatal care. *Obstetrics & Gynecology* , 549-556.
52. Paine, L. J. (2000). A Comparison of visits and practices of nurse-midwives and obstetrician-gynecologists in ambulatory care settings. *Journal of midwifery & women's health* , 37-44.
53. American Nurses Association
54. Needleman, J. &. (2008). Anesthesia provider model, hospital resources, and meternal outcomes. *Health serivces research* , DOI:10.1111/j.1475-6773.2008.00919x.
55. Pine, M. H. (2003). Surgical mortality and type of anesthesia provider. *AANA Journal* , 109-116.
56. Minnesota Department of Health. (2003). *Minnesota department of health study*.
57. APRN Consensus Work Group & the National Council of State Boards of Nursing APRN Advisory Committee. (2008, July 7). *Consensus model for APRN regulation: Licensure, accreditation, certification & education*. Retrieved June 8, 2009, from American Nurses Association.
58. American Nurses Association
59. National Association of Clinical Nurse Specialists. (2009). Testimony of the national association of clinical nurse specialists. *Forum on the Future of Nursing: Acute Care*. NACNS.
60. Brooten, D. e. (1996). A randomized clinical trial of early hospital discharge and home follow-up of very low birthweight infants. *New England Journal of Medicine* , 934-939.



Advanced Practice Nurses Advocate for Kansas Health

61. Naylor, e. a. (1994). Comprehensive discharge planning for the hsopitalized elderly. *Annals of Internal Medicine* , 999-1006.
62. Wheeler, E. e. (1999). The Effect of the clinical nurse specialist on patient outcomes. *Critical Care Nursing Clinical North America* , 269-275.
63. Gray, M et al. (2000). A brief history of advanced practice nursing and its implications for WOC advanced nursing practice. *Journal of wound, ostomy and continence nursing*, 27: 48-54.
64. Sechrist, K.R. and Berlin, L.E. (1998). Role of the clinical nurse specialist: an integrative review of the literature. *AACN Clinical Issues*, 306-324.