PressRoom@ana.org, (301) 628-5197

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# ADVANCED PRACTICE NURSING: A NEW AGE IN HEALTH CARE

s legislators work to bring comprehensive change to U.S. health care, they have focused especially on increasing access for the nation's more than 50 million under- and uninsured. Helped by health care reforms, this additional surge of new users is expected to tap a system already challenged by expanding numbers of elderly, an explosion in outpatient and chronic care, growing specialization by physicians, and a sweeping migration to managed care and cost-efficiency. Moreover, in more than 6,400 shortage areas nation-wide, an estimated 66 million Americans face threats to their health because of limited access to front-lines primary care.<sup>1</sup>

Among the providers eyed by lawmakers to deliver more of the nation's health care are advanced practice registered nurses (APRNs) – an umbrella term for RNs who have met advanced educational and clinical practice requirements – including *nurse practitioners, certified nurse-midwives, clinical nurse specialists,* and *certified registered nurse anesthetists*. Health experts explain that the demand for APRNs is growing especially acute as hospitals focus more on the sickest and most unstable patients, moving the bulk of health services increasingly into homes, community health centers, nurse-managed clinics, schools, birthing centers, and other venues.



## **Practice Fully, "Remove Barriers"**

In its landmark 2010 report on the future of nursing, the Institute of Medicine (IOM) noted that as millions more patients are expected to access health services under the federal Affordable Care Act, APRNs should be prominent in providing that care. "Data from studies of APRNs and the experiences of health care organizations that have increased the roles and responsibilities of nurses in patient care, such as the Veterans Health Administration, Geisinger Health System, and Kaiser Permanente, show that these nursing professionals deliver safe, high-quality primary care," explained the IOM's report, the result of an initiative sponsored by the Robert Wood Johnson Foundation.<sup>2</sup>

However, the IOM's authors also warned policymakers of a number of restrictions, such as in state practice acts and Medicare and Medicaid reimbursement policies that prevent nurses from "responding effectively to rapidly changing health care settings and an evolving health care system. These barriers need to be overcome to ensure that nurses are well-positioned to lead change and advance health."<sup>3</sup> Among its recommendations, the IOM urged that scope-of-practice barriers should be removed so that nurses are able to practice to the full extent of their education and training.<sup>4</sup>

## What APRNs Do:

APRNs are advanced practice registered nurses who have completed formal graduate education leading at least to a master's degree in nursing, and increasingly to a Doctor of Nursing Practice degree, in one of four core APRN roles that provide primary, preventive, and chronic care:



### **Nurse Practitioner (NP)**

Number of NPs: 158,348 (as of 2008)

#### Average Salary in 2009: \$89,579

**Education:** Most of the 425 academic institutions that offer nurse practitioner education in the U.S. confer a master's degree, and many award a nursing doctorate. Most states require NPs to be nationally certified by the American Nurses Credentialing Center (ANCC), a specialty nursing organization. In 2010, more than 12,500 NPs held ANCC certification.<sup>5</sup>

Contrary to popular belief, nurse practitioners are not a new phenomenon. NPs have been practicing in rural and urban communities for more than 45 years, with the first NPs educated at the University of Colorado in 1965. More than 600 million patient visits are made to nurse practitioners each year.<sup>6</sup>

What they do: NPs provide primary and specialized health care to individuals, families, groups, and communities in a wide range of settings from nurse-managed clinics, nursing homes, and hospitals to health maintenance organizations, workplaces, schools, or their own private practices. Most have a specialty – for example – adult, family, pediatric, or gerontological care, as well as other areas such as women's health and psychiatric/ mental health. NPs take health histories; conduct physical exams; diagnose and treat common acute illnesses and injuries; give immunizations; manage high blood pressure, diabetes, and other chronic conditions; order and interpret X-rays and other laboratory tests; counsel patients on disease prevention and healthy lifestyles; and refer patients to other health providers as needed. At least 66 percent of NPs practice in primary-care settings, many in major metropolitan areas as well as rural and inner-city settings delivering vital care to underserved populations.<sup>7</sup>

Nurse practitioners may be reimbursed by Medicare, Medicaid, and private insurers. NPs have prescription authority in all 50 states, while 13 states and the District of Columbia allow NPs to write prescriptions independently without physician supervision or delegation.<sup>8</sup> In 22 states and D.C., NPs can practice independently without physician involvement.<sup>9</sup> Hospital privileges are held by 39 percent of NPs nationally.<sup>10</sup>

### **Certified Nurse-Midwife (CNM)**

Number of CNMs: 18,492 (as of 2008)

#### Average salary in 2008: \$82,111

**Education:** Certified nurse-midwives have an average of one-and-one-half years of specialized education beyond nursing school, either in an accredited certificate program, or like nurse practitioners, typically at the master's-degree level.

**What they do:** While well-known for delivering babies in hospitals, homes, and birthing centers, CNMs also manage women's health throughout the lifespan, providing primary care, gynecological exams, family planning advice, management of low-risk labor and delivery, and neonatal care to women from adolescence through menopause. In addition, nurse midwives provide care of certain reproductive health issues for male partners of female clients. In 2005, more than 7 percent of all U.S. births were CNM-attended,<sup>11</sup> up from 3 percent in 1989.<sup>12</sup>



## **Clinical Nurse Specialist (CNS)**

Number of CNSs: 59,242 (as of 2008)

#### Average Salary in 2008: \$72,856

**Education:** Clinical nurse specialists have an advanced nursing degree, such as a master's or doctorate, in a specialized area of clinical practice, such as geriatrics, psychiatric/mental health, pediatrics, cardiac or cancer care, school health, women's health, and community health. CNS care also encompasses a wide range of sub-specialties.

**What they do:** About 70 percent of CNSs work in inpatient hospital settings, while others practice in clinics, nursing homes, their own private practices, and other community-based settings, such as home care, HMOs, and industry. In addition to delivering direct primary care and psychotherapy, CNSs mentor other nurses, develop quality control methods, and work as case managers, consultants, researchers, educators, and administrators.

## **Certified Registered Nurse Anesthetist (CRNA)**

#### Number of CRNAs: 34,821 (as of 2008)

#### Average salary in 2008: \$154,221

**Education:** CRNAs have 7-8 years of education and training related to their specialty, including a required four-year Bachelor of Science in nursing degree (BSN), at least one year of experience as an RN in an acute care setting, and a master's degree from a 24-36 month nurse anesthesia educational program. All APRNs receive additional core knowledge above and beyond the BSN degree in advanced pharmacology, advanced pathophysiology, and advanced physical assessment across the lifespan. APRNs must pass national board examinations in order to attain certification prior to state licensure, and must fulfill continuing education requirements every two years to remain certified to practice. By the year 2025, a doctorate of nursing anesthesia will be required for entry into the profession.

What they do: Working in the oldest of advanced nursing specialties, CRNAs administer more than 65 percent of all anesthetics each year, and are the sole providers of anesthetics in approximately one-third of all hospitals and 85 percent of rural hospitals. Working most often with an anesthesiologist, but frequently independently, CRNAs administer anesthesia and related care for all types of surgical, therapeutic, diagnostic, and obstetrical procedures, as well as chronic pain management and emergency care, such as for airway management.

## **APRN Effectiveness**

APRNs have the education, training, and skills to perform many of the primary-care duties performed by physicians, a fact already recognized in most states and in many integrated health systems, such as the Veterans Administration, Indian Health Services, and federally qualified health centers. Numerous studies have shown that patients experience similar outcomes when they receive primary care from APRNs as compared to physician services, often with lower costs and higher patient satisfaction.



**Nurse practitioners** can deliver as much as 80 percent of the health services, and up to 90 percent of the pediatric care, provided by primary-care physicians, with equal quality and at lower cost, according to a landmark review by the congressional Office of Technology Assessment (OTA) in 1986.<sup>13</sup> Indeed, OTA concluded, relying solely on physicians for primary care not only restricts the availability of essential providers, but also results in excessive expense. For example, compared to physician training, the education of a nurse practitioner costs at least four to five times less and can be completed at least four years sooner. NPs' annual incomes also are typically considerably less than those for family physicians – an average of \$92,100 compared to \$164,300, respectively, in 2008.<sup>14-15</sup>

An analysis of 38 research studies, conducted in 1992 for the American Nurses Association, found that, compared to physicians, nurse practitioners provided more health promotion (such as patient education and prescribed exercise), scored higher on diagnostic accuracy and completeness of care (such as taking a comprehensive health history), and ordered less expensive laboratory tests. Patients of NPs also complied better than physicians' patients in taking medications, keeping appointments, and following recommended behavioral changes.<sup>16</sup>

Moreover, a review of 19 recent studies in the May 2010 issue of the journal *Health Affairs* confirmed that nurse practitioners delivered care equivalent to physician-provided care – "and, in some studies, more effective care among selected measures than that provided by physicians." NPs also consistently demonstrated better results for patient follow-up, satisfaction, consultation time, and providing screening, assessment, and counseling.<sup>17</sup>

Overall, **certified nurse-midwives** managed normal pregnancies safely and as well as or better than physicians, according to OTA's study.<sup>18</sup> In addition, researchers analyzing 15 investigations in 1992 found that CNMs induced labor less frequently and used less anesthesia and technology, delivered fewer low-birthweight and premature infants, and had patients with shorter hospital stays than comparable care by physicians.<sup>19</sup>

Among a sample of congestive heart failure patients who were followed for 12 months, those whose cases were managed by a **clinical nurse specialist** had briefer and less-costly hospital stays.<sup>20</sup> In 2001, researchers found that prenatal care delivered in the home by CNSs resulted in fewer fetal/infant deaths, fewer preterm infants, fewer prenatal hospitalizations, and fewer rehospitalizations compared to a control group.<sup>21</sup>

Following a comprehensive review of nine recent studies, Virginia-based The Lewin Group found no measureable differences in the quality of care between **certified registered nurse anesthetists** and physician anesthesiologists, regardless of whether CRNAs or anesthesiologists acted solo or a single anesthesiologist supervised one to six CRNAs. Reporting in the May/June 2010 issue of *Nursing Economics*, Lewin's researchers also found that a CRNA acting as sole anesthesia provider is the most cost-effective model of anesthesia delivery, costing 25 percent less than the next lowest cost model. Instances in which one anesthesiologist supervises one CRNA were the least cost-efficient.<sup>22</sup>

### **Standardizing the Process**

While the new health care reform law has widened patients' access to high-quality nursing care, the proliferation of nursing specialties, ongoing debates on appropriate credentials and scopes of practice, and a lack of uniformity among state regulations continue to pose barriers to where APRNs can practice and who they can treat. In 2008, after several years of study and debate, the *Consensus Model for APRN Regulation: Licensure, Accreditation, Certification, and Education* was completed and endorsed by 44 organizations representing APRN certifiers, accreditors, public regulators, educators, and employers.<sup>23</sup>

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ASSOCIATION



The landmark document delineates the specific roles, titles, and specialties of APRNs and, when fully implemented, will ease access to essential patient care by standardizing each aspect of the regulatory process.

## "Lifting Legal Barriers"

The Institute of Medicine's Future of Nursing report urges that APRNs "should be able to practice to the full extent of their education and training," and recommends that states reform their scope of practice regulations to conform to the National Council of State Boards of Nursing Model Nursing Practice Act and Model Nursing Administrative Rules, which are based on the consensus document.<sup>24</sup>

More than a decade earlier in 1994, the Pew Health Professions Commission observed that the majority of nurse practitioners work in primary care settings, and unlike physician assistants, "can be licensed to practice independently, thus enabling them to work in underserved areas." But for years, practice restrictions – such as lack of prescription authority or requirements for on-site physician supervision – have impeded independent practice by NPs and limited where they are able and willing to serve. Indeed, Pew's commissioners said, requirements for supervision can "promote redundancy" when physicians supervise tasks already within the scope of an NP's competency.<sup>25</sup>

Other policy groups also have called for the removal of legislative and regulatory barriers that impede APRN practice. A recent policy statement by the American Association of Retired Persons urges lifting legal barriers that "are short-changing consumers," and calls on states to amend nurse practice acts and accompanying rules to "allow APRNs to fully and independently practice as defined by their education and certification."<sup>26</sup> In a similar move, the Citizen Advocacy Center, a support organization for public members serving as consumer representatives on health professional boards, recently launched a project to inform consumers about scope of practice issues and advocating for changes to increase access.<sup>27</sup>

## **Ensuring Reimbursement Parity**

Similarly, many analysts have called for reform of reimbursement policies that pay nurse practitioners and physicians different rates for the same services. Typically, Medicare, Medicaid, and private insurers reimburse NPs at 75-85 percent of what they pay physicians for comparable services. In order to be paid at 100 percent of the physician rate, an NP usually must be supervised by a physician and bill under the physician's provider number. In its report to Congress in 2002, the Medicare Payment Advisory Commission (MEDPAC) determined there was "no specific analytic foundation" for the payment disparity and urged further study of the issue. "The arbitrary discrepancies in Medicare nurse practitioner reimbursement deemed baseless by MEDPAC should be fully evaluated, with an overall aim of achieving pay parity for the same services," urged researchers Mary D. Naylor and Ellen T. Kurtzman in their review of recent studies of NP effectiveness in the journal *Health Affairs*.<sup>28</sup>

## Legislative/Regulatory Action

The Joint Commission, an independent agency that accredits and certifies more than 19,000 health care organizations and programs in the U.S., has included nurse-managed clinics – such as those managed by nurse practitioners and certified nurse-midwives – as "primary care medical homes" – centralized providers that coordinate a patient's care across multiple settings and practitioners. The decision adds APRNs to an innovative, cost-effective model for delivering high-quality care.<sup>29</sup>



In addition, the new federal health care reform law – the Patient Protection and Affordable Care Act – provides funding for an array of APRN services including nurse-managed health centers, as well as grants for graduate education in nurse-midwifery and geriatric nursing. Within Medicare, the law also would establish a demonstration program to reimburse eligible hospitals for their graduate education costs in training APRNs to provide primary and preventive care, transitional care, chronic care, and other services for Medicare patients.

In January 2011, the law increased Medicare reimbursement for certified nurse-midwives from 65 percent of the rate paid to physicians to the full rate. But new legislation introduced in Congress would also alter Medicare and Medicaid law to officially designate all APRN care on a par with services billed by other health providers. Currently, federal law requires Medicaid to recognize only some advanced nurses – specifically, pediatric and family nurse practitioners and certified nurse-midwives – as eligible for reimbursement under the fee-for-service program for states. The Medicaid Advanced Practice Nurses and Physician Assistants Access Act (S.56) would recognize all nurse practitioners and certified nurse-midwives as primary-care case managers, and allow direct reimbursement to all nurse practitioners and clinical nurse specialists for their services. In addition, the measure would require Medicaid to include NPs, CNSs, CNMs, and CRNAs on all of the program's managed care panels.<sup>30</sup>

Under the Home Health Care Planning Improvement Act (S.227), APRNs and physician assistants could order Medicare-covered home health services in accordance with state law. Although Medicare has recognized the independent practice of APRNs for nearly two decades, a quirk in the law has kept advanced nurses from signing home health care plans and from certifying Medicare patients for home health benefits without a physician's signature. Since APRNs deliver the majority of care to the nation's approximately 12 million home health patients, the restriction has delayed treatment in areas hit hard by physician shortages. Such obstacles can lead, as well, to higher Medicare costs when patients are left unnecessarily in more expensive institutional settings or are readmitted after being discharged without needed support at home. S.227 would provide seniors and disabled citizens with timely access to qualified home health providers.<sup>31</sup>

### **Resources**

American Academy of Nurse Practitioners (www.aanp.org) American Association of Colleges of Nursing (www.aacn.nche.edu) American Association of Nurse Anesthetists (www.aana.com) American College of Nurse-Midwives (www.midwife.org) American College of Nurse Practitioners (www.acnpweb.org) American Nurses Credentialing Center (www.nursecredentialing.org) National Association of Clinical Nurse Specialists (www.nacns.org) National Organization of Nurse Practitioner Faculties (www.nonpf.org)

The ANA is the only full-service professional organization representing the interests of the nation's 3.1 million registered nurses through its constituent and state nurses associations and its organizational affiliates. The ANA advances the nursing profession by fostering high standards of nursing practice, promoting the rights of nurses in the workplace, projecting a positive and realistic view of nursing, and by lobbying the Congress and regulatory agencies on health care issues affecting nurses and the public.



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<sup>2-4</sup> Institute of Medicine. (October 5, 2010). *The Future of Nursing: Leading Change, Advancing Health.* Retrieved from http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx

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<sup>7</sup> American Academy of Nurse Practitioners. *NP Facts*. Retrieved July 7, 2011 from http://aanp.org/NR/rdonlyres/54B71B02-D4DB-4A53-95A6-23DDA0EDD6FC/0/NPFacts2010.pdf

<sup>8-9</sup> Citizen Advocacy Center. (September 2010). Scope of Practice FAQs for Consumers: Advanced Practice Registered Nurses (APRNs). Retrieved July 7, 2011 from http://www.cacenter.org/ files/SOPaprn.pdf

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<sup>11</sup> Declercq, Eugene. (January/February 2009). Births Attended by Certified Nurse-Midwives in the United States in 2005. *Journal of Midwifery and Women's Health*, 54(1), pp. 95-96.

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<sup>19</sup> Brown, Sharon A. and Deanna E. Grimes, *A Meta-Analysis of Process and Care, Clinical Outcomes, and Cost-Effectiveness of Nurses in Primary Care Roles: Nurse Practitioners and Nurse-Midwives*, see note 16. <sup>20</sup> Topp, R., D. Tucker and C. Weber. (1998). Effect of Clinical Case Manager/Clinical Nurse Specialist Patients Hospitalized with Congestive Heart Failure. *Nursing Case Management*, 3(4), 140-145.

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<sup>22</sup> Hogan, Paul F., Rita Furst Seifert, Carol S. Moore and Brian E. Simonson. (May-June 2010). Cost- Effectiveness Analysis of Anesthesia Providers. *Nursing Economics*, 28(3), 159-169.

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<sup>24</sup> Institute of Medicine, *The Future of Nursing: Leading Change, Advancing Health*, see notes 2-4.

<sup>25</sup> Pew Health Professions Commission. (April 1994). *Nurse Practitioners: Doubling the Graduates by the Year 2000.* University of California, San Francisco: Center for the Health Professions, pp. 1, 16.

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<sup>28</sup> Naylor, Mary D. and Ellen T. Kurtzman, The Role of Nurse Practitioners in Reinventing Primary Care, see note 17.

<sup>29</sup> The Joint Commission. (May 24, 2011). *Joint Commission Primary Care Medical Home Option to Launch in July* (News Release). Retrieved from http://www.jointcommission.org/joint\_commission\_primary\_care\_medical\_home\_option\_to\_launch\_in\_july/

<sup>30</sup> American Nurses Association. (June 23, 2011). ANA Supports Bill to Improve Health Care Access for Medicaid Patients (News Release). Retrieved from http://nursingworld.org/Functional-MenuCategories/MediaResources/PressReleases/Improve-Health-Care-Access-Medicaid-Patients.aspx

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