This book is designed to be a resource for those who are interested in or touched by nursing. We have tried to capture the field in a single volume and to share the best thinking of those who study and practice it. Readers—whether researchers or practitioners, foundation or government officials, students, or simply laypeople interested in nursing—should use this volume to gain a better understanding of the nursing profession and the issues with which those in the field and related fields are grappling.

An initial challenge for the editors was determining how to present the wealth of information in an engaging, readable way—one that would satisfy both those deeply knowledgeable in the field as well as those less familiar with nursing. This challenge was relatively easy to overcome because The Nursing Profession: Development, Challenges, and Opportunities is the fifth volume in a series whose format, according to the reviews, appears to be working. We adopted that format, one that consists of a comprehensive review article, followed by reprints of the twenty-four or so most influential or important articles in the field.

Finding a knowledgeable, highly respected expert on nursing—one who is a good writer to boot—to do a comprehensive review of the field presented a second challenge. Fortunately, one of us—Diana Mason—met all of the requisites, and she has written the lead chapter, which covers the field in its entirety (with the exception of the specifics of clinical nursing). Among the topics that Dr. Mason covers are:

- The history of nursing
- The nursing profession
- Current issues and challenges, including the nursing shortage, educating and training nurses, utilizing advanced practice nurses to their fullest, quality and cost, long-term care, community-based care, gender and power, and new areas for nursing
- A vision for the future

The most daunting challenge, not surprisingly, turned out to be selecting the articles or book chapters for reprint. How to choose twenty-four that represent the most important or influential in a field with such an extensive, high-quality literature? As a first step, we asked more than thirty experts for their top picks. From their suggestions, plus those gleaned from our own experience and literature reviews, we compiled an initial list of roughly 200 articles or book chapters that were potential reprint candidates.
The three editors discussed each of the articles and winnowed the list gradually. We wanted to be sure to include pieces that were of historical importance (such as a selection from Florence Nightingale’s *Notes on Nursing* and the *Goldmark Report*), that influenced the field (such as Mary Mundinger’s article on nurse practitioners in the *Journal of the American Medical Association* and Linda Aiken’s article, also in *JAMA*, on hospital nursing), that captured basic aspects of the profession (such as Susan Reverby’s article on womanhood and nursing and Claire Fagin and Donna Diers’ short commentary, *Nursing as Metaphor*), and that synthesized issues in a clear and compelling manner (for example, the articles by Peter Buerhaus and colleagues on the nursing shortage and by Connie Mullinex and Dawn Bucholtz on nurse practitioners). We organized the reprints by topic, roughly following the major themes presented in Mason’s review chapter and tried, though with only partial success, to strike an equitable balance in the number of reprints within each category.

We realize that many worthy pieces are not included in the twenty-four that are reprinted in the book. It is likely that another team of editors would have come up with a somewhat different list of reprints. We believe, however, that the final list represents a fair sample of the most important and influential articles in the nursing field.

As Risa Lavizzo-Mourey observed in her foreword, this book is designed in part to complement the report by the Institute of Medicine on the future of nursing. In that regard, we are honored to have a preface by Susan Hassmiller, the executive director of the IOM’s Initiative on the Future of Nursing, and an afterword by Donna Shalala and Linda Burns Bolton, the chair and vice chair of IOM committee that prepared the report.

With the passage of Patient Protection and Affordable Care Act in 2010 and its implications for the way health services are delivered, the condition of nursing in our nation will be more important than ever. The combination of the IOM report and this book will, we hope, promote greater understanding of the nursing field; educate the nursing, health care, student, and policy communities, as well as the interested public; and help inform a nursing agenda that will lead to improving the health and well-being of all Americans.
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THE NURSING PROFESSION: DEVELOPMENT, CHALLENGES, AND OPPORTUNITIES

DIANA J. MASON

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  Ensuring that the Nation Fully Utilizes Its Nursing Workforce
Nursing has a long and important legacy. Nurses have served as advocates for a better, safer, more humanistic health care system, and for public policies that promote the health of the nation throughout the profession’s history.

- Lillian Wald in 1893 founded the Henry Street Settlement that provided home care to New York City’s poor immigrants on the Lower East Side of Manhattan when no other providers would serve them.¹
- Margaret Sanger was a public health nurse whose fight for the reproductive rights of women from 1916, when she established the nation’s first birth control clinic, to her death in 1966 changed the nation’s policies on access to birth control information and services.²
- Ruth Watson Lubic, the first nurse to receive the John A. and Catherine D. MacArthur Foundation’s “Genius Award,” has spent the last half century as a leader in reframing childbearing as a “normal” life experience rather than a disease. She founded one of the first freestanding, nurse-midwife-run childbearing centers in the nation and spread her model to the South Bronx and Washington, D.C., where she has improved outcomes for mothers and babies.
- Connie Hill is a pediatric nurse manager on a respiratory unit at Chicago’s Children’s Hospital, where she refused to accept the notion that her urban community could not muster the resources to support long-term ventilator-dependent children and their families after hospital discharge. She formed a coalition of stakeholders to bring about the policy, system, and financial changes needed to accomplish this.³

The legacy of nurses such as these continues to be enriched by those who follow their example and refuse to be bound by others’ views of their profession or of women’s place in society and the health care system. Nurses are expert clinicians, researcher-scientists, policymakers, chief executive officers of hospitals and their own organizations, primary care providers, independent practitioners, deans of schools of nursing in research-intensive universities, heads of foundations, and leaders in every segment of society. Every day, nurses innovate to keep people alive, prevent pressure ulcers and infections, reduce pain and suffering, and ease the transition from life to death. They screen schoolchildren’s ability to see and hear, teach older adults and their family caregivers how to manage illnesses such as congestive heart failure, provide outreach to the homeless, counsel those with mental illness, and are otherwise present during some of the most intense, joyous, painful, difficult, and profound times of people’s lives.

Yet nurses face significant barriers to providing the care that people need, and they are often excluded from policymaking in workplaces, boardrooms, and government entities. Legal and regulatory barriers to the full utilization of nurses persist, limiting the nation’s ability to use its health care workforce efficiently and effectively. Other barriers are not specific to nurses but impede them from fully using their expertise. For example, nurses are skilled in managing chronic illness and coordinating care, but most payers do not cover these services.

Most policy discussions about nursing have focused on nursing shortage—a focus that overlooks the innovations and perspectives nurses can offer to improve both the way health care is delivered and the overall well-being of Americans. Certainly, the shortage is
a complex problem of supply and demand. With the doubling of the nursing workforce over the past 25 years, it has become clear that the demand is outpacing the nation’s ability to educate and retain enough nurses. In fact, the demand part of the equation speaks to how valuable nurses are to the nation’s health care system. But there are two pitfalls that should be avoided in addressing the shortage. First, much of the focus has been on how to recruit more new nurses, with insufficient regard for how to retain and better utilize qualified nurses and decrease unnecessary demands on their time. Second, although nurses are part of most discussions about the health care workforce, they are often excluded from discussions of how to transform health care. Meeting these challenges requires an understanding of the complex realities of nursing and the important policy issues that confront the nation.

A BRIEF HISTORY OF NURSING

In her insightful discussion of the gradual professionalization of nursing during the nineteenth century and the first half of the twentieth, historian Susan Reverby describes the inherent tension between duties and rights that increased as nursing emerged from traditional “women’s work”:

Nursing was organized under the expectation that its practitioners would accept a duty to care rather than demand a right to determine how they would satisfy this duty. Nurses were expected to act out of an obligation to care, taking on caring more as an identity than as work, and expressing altruism without thought of autonomy either at the bedside or in their profession. Thus, nurses, like others who perform what is defined as “women’s work” in our society, have had to contend with what appears as a dichotomy between the duty to care for others and the right to control their own activities in the name of caring.4

These tensions between rights and duties continue to haunt nursing to this day.

The Beginnings of Modern Nursing

Prior to Florence Nightingale, daughters and wives were expected to care for infirm relatives. It wasn’t until the Crimean War (1853–1856) that Nightingale, regarded by many as the mother of modern nursing, performed the work that indelibly marked the profession and the development of health care delivery, leaving a legacy of data-driven, altruistic practice.

Nightingale violated prevailing tenets of the privileged class of England in the early 1800s to become a nurse. Her work at the British military hospital at Scutari, begun in November 1854, was groundbreaking. She collected data on the causes of death among the soldiers and demonstrated that a significant number were due to poor nutrition and unsanitary, toxic environmental conditions at the hospital. The changes she instigated in the hospital dramatically improved clinical outcomes.5,6

Her treatise, Notes on Nursing: What It Is and What It Is Not,7 defined nursing as creating the conditions for nature to take its course in healing a person—conditions such as a clean and nontoxic environment, fresh air, good nutrition, comfort, rest, and emotional support. While ostensibly deferring to the military surgeons at the hospital in keeping with gendered role expectations of the day, she used her connection with a reporter at
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The London Times to get front-page coverage of the problems at the hospital. The reports sparked public outrage, and she got the supplies, equipment, and support that she needed. Nightingale went on to transform the British, Indian, and military health services.

Nightingale also upgraded and formalized nursing education and the role of nurses. She transformed the image of the drunken, untrustworthy nurse immortalized as Sarah Gamp in Charles Dickens's Martin Chuzzlewit, to that of an educated, ethical, caring “lady.” Indeed, Nightingale was referred to as “the lady with the lamp,” because of her habit of making rounds night and day, tending to ill soldiers, and overseeing her nursing staff with a comportment that challenged the Gamp stereotype of nurses. She established the Nightingale School of Nursing at what is now St. Thomas Hospital in England, and replaced physician oversight of nursing services with an independently funded women’s nursing organization. This work coincided with other experiments in modern nursing in Germany and France and became the model for educating nurses in Western countries.8,9

In the United States, the Civil War had demonstrated the need for trained nurses, although both men and women tended to wounded soldiers on both sides of the conflict. Walt Whitman was among these untrained nurses, as were Harriet Tubman and Sojourner Truth, two women born into slavery and committed to promoting freedom and human rights as conditions necessary for a healthy nation.10 After the war, urbanization disrupted family relationships and gender roles, opening new opportunities for women and leading to the emergence of more formalized nursing education and practice.

The Professionalization of Nursing

By the late 1800s, the professionalization of nursing was well under way. In 1873, New York City’s Bellevue Hospital became the first in the country to establish a program of nursing education based on the Nightingale model. New Haven Hospital and Massachusetts General Hospital quickly followed. Between 1890 and 1900, about 400 training schools for nurses opened across the country.11 These hospital programs offered diplomas in nursing and an apprentice-style education in which students cared for patients in hospitals under the tutelage of a nursing supervisor. Later viewed as an exploitation of women, these students worked long hours, six days a week.

Once they graduated, most of the new nurses sought employment in private homes. This situation persisted until the Great Depression stripped families of their ability to hire nurses. Later, the Hill-Burton Act of 1946 boosted the numbers of hospital nurses by providing funds for the construction of new hospitals across the country, giving acute care preeminence in the American health care system and initiating an unquenchable demand for hospital nurses that continues to this day.12

In the early years of this professionalization, Isabel Hampton Robb, who in 1889 became the first head of the Johns Hopkins School of Nursing, promoted the idea that nurses were motivated by altruism and the moral responsibility to care for and promote the health of others, regardless of the setting.13 Motivated by this vision of the mission of nursing, nurses began venturing into poor communities to educate women about home hygiene, healthy living, and nutrition. The most noteworthy of these nurses was Lillian Wald.
Wald was born into a well-off family in Cincinnati, Ohio, that later moved to Rochester, New York, where she attended a boarding school. She decided to dedicate her life to nursing and enrolled in the New York Hospital Training Program in 1889. She coined the name “public health nursing” for nurses who served poor and middle-class families in their homes and communities. She taught classes in health promotion and disease prevention. In 1893, Wald founded the Nurses Settlement, which became known as the Henry Street Settlement, to better address the horrific living conditions and poor health of immigrants living on the Lower East Side of Manhattan. In addition to providing health and hygiene classes, she and a group of nurses made home visits, often navigating unsafe, unclean environments, as immortalized in the famous photograph of a Henry Street nurse going from one tenement to another across the rooftops, which also saved them time.

Wald also started the Visiting Nurse Service of New York, occupational health nursing, and school health nursing. Before the phrase was coined, she recognized what we now know as “the social determinants of health,” arguing that preventing illness was cheaper than caring for the ill. She understood that children cannot be healthy without having an opportunity to play under safe conditions, so she started the first playground in the city. At a time when there was a bureau for the protection of animals but no comparable federal oversight for the welfare of children, she became a leading advocate for the first federal Children’s Bureau. She also knew that the arts can enrich the emotional lives of people worried about how to provide the next meal for a family, so she opened a theater as part of the settlement house. She believed that war does not create health, so she actively opposed the nation’s involvement in the First World War. Although social work also claims her, nurses view Wald as

Source: Visiting Nurse Service of New York, www.vnsny.org; c. 1905
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an exemplar of the profession’s promise of innovation, altruism, and reformation and its understanding of the family and community context of individual health.

But not all nurses were as well educated—or as visionary—as Wald. In fact, the lack of standardization among the hospital training programs that had mushroomed in the late 1800s prompted a movement to secure legal registration of nurses. North Carolina became the first state to enact a registration law, doing so in 1903, followed by New York, New Jersey, and Virginia. By 1917, 45 states had passed nurse practice acts, most of which authorized boards of examiners to ensure, among other things, that an applicant to become a registered nurse met the necessary criteria. These included graduation from an approved training program.15,16

Throughout the ensuing decades, states refined their legal definitions of nursing. Legal scholar Barbara Safriet documented that early medical practice acts were written so broadly that they precluded other professions from claiming health care roles that were independent of physician supervision.17 This issue has been central to nursing’s battle for independence and authority over its own practice.

War and the Development of Nursing

Wartime has provided opportunities for nurses to make significant advances in both science and professional status. The American Red Cross, founded in 1905 by congressional mandate to ensure the availability of relief and aid during national crises, formed its nursing services under the leadership of the nurse Jane Delano in 1909. The Red Cross played a critical role in providing nurses at military and Red Cross hospitals during World War I. To ensure a continuing supply of nurses during the war, the Army School of Nursing was established, along with a “training camp” at Vassar College that set the stage for nursing education to move into universities.18 Following both World Wars, the skills and knowledge that nurses needed to care for the wounded expanded and were carried into civilian nursing practice.

The Vietnam War also advanced nurses’ roles and responsibilities. Nurses were essential providers of emergency, trauma, and rehabilitative care, but their contributions to the war went largely unrecognized until Morley Safer focused a segment of 60 Minutes on the post-traumatic stress disorder experienced by many nurse veterans of that war.19 Nonetheless, the military has been a place for nurses to advance their careers and the profession. To this day, when a flood of wounded and dying soldiers comes through the door of a military hospital, an “all hands on deck” attitude prevails, and legal barriers to what nurses and other health care professionals do melt away. A recent example is that of Rear Admiral Kathleen Martin, a nurse who commanded Bethesda’s National Naval Medical Center in 1999 and 2000. In 2007, another nurse, Major General Gale Pollack, served as the Acting Surgeon General of the United States Army for nine months following media reports of poor care at Walter Reed Medical Center. She was the first woman and nonphysician to serve as Army Surgeon General. Both of these nurses also served as chief of the Army Nurse Corps.

Modern Nursing: Education, Specialization, and Certification

After World War I, the nation confronted a shortage of nurses and continuing problems with the lack of standards for nursing education. Nurses had died while caring for people who
took ill during the influenza epidemic of 1918, and hospitals expanded diploma nursing programs with little regard for the quality of the education. In 1919, the Rockefeller Foundation funded a Committee for the Study of Nursing Education. The Committee’s report, issued in 1923 and known as the Goldmark Report, was critical of hospital training programs and called for a separation of education from service and moving nursing education into universities.20

Since the Goldmark Report was issued, nursing education and practice have been studied repeatedly by national commissions, all of which have reached remarkably similar conclusions.21 After the Second World War, the Carnegie Corporation provided partial funding for what became known as the Brown Report (after staff member Esther Lucille Brown, a social scientist), published in 1948.22 Its recommendations on nursing education echoed those in the Goldmark Report, but also called for a differentiation between “professional” and “technical” nursing and the expansion of nursing practice in community settings.

The recommendation was taken up in the 1950s by Mildred Montag, founder and director of the first nursing program at Adelphi University in New York in 1942 and subsequently a professor at Columbia University’s Teacher’s College. Montag developed a proposal that was funded by the W. K. Kellogg Foundation to educate technical nurses in associate degree programs at seven junior colleges and a hospital.23 Thus began a continuing debate about the appropriate roles and education of nurses, as associate degree nursing programs proliferated without adoption of the “technical nurse” moniker. Most important, the Brown Report and Montag’s work led to an end of the dominance of hospitals in the education of nurses. Thereafter, most hospital diploma nursing programs either closed or partnered with community colleges and universities. As of 2008, there were only 69 diploma nursing programs left in the country.

Following World War II, more women (and a few men), often from families of little means, enrolled in universities to be educated as nurses. They were supported, in part, by the GI Bill and, later, by the federal Nurse Training Act of 1964.24 The funding enabled them to enter a profession—and the middle class. There was also a need for nurses with a stronger foundation in the sciences. As the education of nurses moved into colleges and universities, nursing faculty had to meet academic standards. In the 1960s, the federal nurse-scientist program provided support for postgraduate nurses to obtain doctorates in fields such as physiology, psychology, anthropology, and sociology.25 These nurse-scientists led the profession’s efforts to build its scientific base.

The number of baccalaureate schools of nursing increased, and in 1956 Columbia University opened the country’s first graduate program in a clinical nursing specialty. The women’s movement and social upheavals of the 1960s and 1970s encouraged nurses to seek the education and authority commensurate with their greater responsibilities. Baccalaureate and master’s degree programs prepared registered nurses who resisted the outdated role of the nurse as the physician’s handmaiden and aimed at claiming control over their profession. They carved out their own sphere of practice and developed new roles, including clinical nurse specialists and nurse practitioners.

The development of this latter role has been particularly significant. In 1966, pediatrician George Silver and University of Colorado nursing dean Loretta Ford developed a postbaccalaureate program to prepare nurses, in collaboration with pediatricians, to provide primary care to underserved children.26 The program was so successful that nurse
practitioner certificate programs proliferated as a way to address the shortage of primary care physicians. These programs moved from being affiliated with schools of medicine to being full-fledged graduate programs in schools of nursing.

Just as medicine evolved from a generalist to a specialist focus, nursing specialties emerged over the years. Since the late 1800s, nurses had specialized in public health, midwifery, and anesthesia. But it wasn’t until the late 1960s, with the expansion of intensive care units, that subspecialties took hold. To meet the need for nurses capable of exercising assessment and monitoring skills in high-tech environments, nursing developed subspecialties in critical care, such as neonatal, cardiac, and neurosurgical. Other subspecialties arose around specific diseases and clinical conditions, clinical settings and services, procedures, and populations.

The first certification examination for a specialty was offered by the American Association of Nurse Anesthetists in 1945, after more than a half century of nurse-administered anesthesia. In 1991, the American Nurses Association (ANA) formed the American Nurses Credentialing Center to promote excellence in practice. To date, it has certified over 250,000 nurses in various specialties. Specialty nursing organizations realized that providing certification is a revenue-generating activity, and many have developed their own certification programs.

The American Nurses Credentialing Center also developed a designation for hospitals that demonstrate excellence in nursing practice—the Magnet Recognition Program. The nursing shortage of the 1980s led to widespread reports of poor working conditions that were undermining nurses’ ability to deliver safe patient care and causing nurses to leave practice. Some hospitals had no trouble recruiting and retaining highly qualified nurses. These hospitals had reputations for excellence in nursing care, and nurses considered them to be good places to work. A group of nurse-researchers who were fellows of the American Academy of Nursing examined best practices for ensuring excellence in nursing in 41 hospitals from around the country that fit this description. Interviews with the hospitals’ chief nursing officers and staff nurses revealed the key elements. These were further refined and used to evaluate hospitals that apply for Magnet designation. This designation has driven changes in nursing practice and hospital environments.

Throughout the years, nursing practice has evolved along with advances in science and technology. Nurses have been key to making modern, high-tech hospitals more hospitable. It can be argued, however, that caring for patients has shifted from creating conditions for patients to heal—the purpose of nursing as defined by Nightingale—to tending to machines that monitor patients and deliver therapies. In fact, the worst of hospital nursing today loses sight of the patient in the maelstrom of modern-day medical and technological complexity. The best of nursing keeps the patient as the focal point and seeks to integrate the various technologies that have become markers of acute care institutions.

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Defining Nursing

Health care used to be defined as the province of physicians who diagnosed and treated disease—a perspective that left nurses and other providers struggling to define their roles. Was nursing more than what physicians wanted nurses to do? Did nurses have any
specialized knowledge and skill that was different from that of physicians? Could nursing exist apart from medicine? Did it have its own intrinsic value? Full utilization of nurses requires an understanding of the answers to these questions.

Caring in a nursing context demands expert knowledge about, and the ability to integrate, the physical, psychological, emotional, and social dimensions of health; skill in administering supportive care; superb critical thinking and clinical judgment; honed assessment skills; proficiency in coordinating care and advocacy, and more.29

There are three classic definitions of nursing. Nightingale viewed nursing as activities “to put the patient in the best condition for nature to act upon him.”30 One hundred years later, Virginia Henderson, an influential thinker at Columbia University Teachers College and the Yale School of Nursing, provided a definition that was adopted by the International Council of Nurses and published by the American Journal of Nursing. Hers was the first to clearly articulate nurses’ independent functions:

The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or a peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge. And to do this in such a way as to help him gain independence as rapidly as possible. This aspect of her work, this part of her function, she initiates and controls; of this she is a master.31

Henderson’s definition differentiated nurses’ unique sphere of practice (“independent” functions) versus the commonly understood “dependent” functions—that depended upon a physician’s order or prescription. Henderson even defined the role of the nurse in relation to physicians and the medical regimen with a patient focus: “In addition, she helps the patient [italics added] carry out the therapeutic plan as initiated by the physician.” And, for the first time, Henderson’s definition clearly articulated the legitimacy of two important health care roles that nurses had long fulfilled: caring for people at the end of life, when recovery is not possible, and promoting the health of people who are not ill.

The third important definition of nursing was included in the landmark New York State Nurse Practice Act of 1972. Because the definition was contained in a statute, it provided legal support for nurses’ independent practice:

The practice of the profession of nursing as a registered professional nurse is defined as diagnosing and treating human responses to actual or potential health problems through such services as casefinding, health teaching, health counseling, and provision of care supportive to or restorative of life and well-being, and executing medical regimens prescribed by a licensed physician, dentist or other licensed health care provider legally authorized under this title and in accordance with the commissioner’s regulations. A nursing regimen shall be consistent with and shall not vary any existing medical regimen.32

The last sentence was written to allay the concerns of physicians who claimed that fully independent nurses could destroy physicians’ authority over patients’ medical care.33 It remains in the state’s practice act.
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The New York State law became a model for other states. It enabled nurses to claim a body of knowledge apart from medicine and to have authority over their own practices. The language in the legislation referring to “diagnosing and treating human responses” reflected a movement among nurses to develop nursing diagnoses that centered on the patients’ responses to health problems and were distinct from disease-centered medical diagnoses. Including “potential health problems” in the definition reinforced the importance of disease prevention and health promotion. In contemporary terms, the work defined in this practice act entails care coordination, chronic care management, disease prevention, and health promotion.

In 1980, to help nurses, policymakers, health care administrators, and others conceptualize more clearly the scope of professional nursing, the ANA published *Nursing: A Social Policy Statement*. This document articulated a social context for nursing, describing nurses’ responsibilities to patients and society, and validating an advocacy role for nursing. The most recent version of *Nursing’s Social Policy Statement* defines the role of the profession as:

> the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations.

**The Nursing Workforce**

The nursing workforce is large and diverse. It includes registered nurses (RNs), licensed practical or vocational nurses (LPNs, LVNs), advanced practice registered nurses (APRNs), and direct care workers, such as nursing assistants and home health aides (who are seldom discussed in nursing workforce studies, as they are unlicensed).

**Direct Care Workers**

Direct care workers include nursing assistants, home health aides, and personal care assistants. The majority work in home and community settings and are key to keeping disabled and elderly people in their own homes. They provide the bulk of care in long-term care facilities and augment the nursing staff in many hospitals. They increasingly care for people who may have severe dementia, paralytic stroke, or other debilitating conditions that are challenging even to professional health care providers.

Although they are not licensed by the states, direct care workers who work in Medicare- and Medicaid-certified facilities or home care agencies are required by the federal government to be certified. The requirements for designating a provider as a certified nursing assistant are completion of 75 hours of training and competence to provide assistance in activities of daily living (such as bathing, feeding, toileting, and ambulating) and to perform certain nursing procedures under the supervision of an LPN or RN.

Today, there are more than 3 million direct care workers in the United States. Almost half are self-employed or work for private households, 42% have some college education, and 88% are women. The average direct care worker’s salary is less than $25,000 per year.
and 45% of direct care workers live in households with an annual income that is less than 200% of the poverty level.\textsuperscript{39} These positions frequently are low-paid and lack health insurance and other benefits.\textsuperscript{40}

**Licensed Practical or Vocational Nurses (LPNs)**

As the education of nurses moved from the hospital to the university and community colleges, the role of the LPN (also referred to as vocational nurse in some states) evolved as someone with technical skill—from bathing a patient to administering medications or changing dressings—but without the education for independently assessing patients, diagnosing health problems, developing interventions, and evaluating outcomes. LPNs function under the supervision of a registered nurse, physician, dentist, or other licensed provider. Their education varies from about nine months to two years in length, and is provided largely by vocational training programs.

There are approximately 890,000 LPNs in the United States.\textsuperscript{41} Ninety-seven percent are women. Two-thirds (67%) are white, one-quarter (26%) are black, and 3% are Hispanic. Fourteen percent have no more than a high school education; 34% have “some” college education; 45%, an associate’s degree; and 5%, a baccalaureate or higher degree. Their average annual salary in 2008 was just over $40,000.\textsuperscript{42} Approximately one-quarter work in hospitals, 28% in “nursing and personal care facilities,” and 12% in physicians’ offices.\textsuperscript{43} Twenty-four percent of RNs worked as LPNs prior to their first RN position.\textsuperscript{44}

**Registered Nurses**

In 2008, there were 3,063,163 RNs in the United States—an increase of 5.3% since 2004. More than 84% are employed in nursing, and this is the highest proportion recorded (see Figure 1).

Although nurses’ real earnings remained flat in the 1990s, this has now changed. Nurses’ average annual salary in 2008 was $66,973, an increase of over 15% since 2004.\textsuperscript{45} RNs remain predominantly women (94.2%).\textsuperscript{46} The RN workforce has aged from 1980 to 2008; in 2008, the average age of an RN was 47 years, illustrating the imperative to increase the pipeline of new nurses as older ones approach retirement.\textsuperscript{47} Regarding ethnicity, 83.2% of RNs are non-Hispanic white, a drop of over four percentage points since 2000; 5.4% are black or African American; 5.8% are Asian; and 3.6% Hispanic or Latino.\textsuperscript{48}

To qualify as an RN, one of several possible educational programs must be completed: a diploma hospital program; an associate degree program (usually provided by community colleges); a college or university baccalaureate program; or a direct-entry master’s degree program that bypasses the baccalaureate degree for people with bachelor’s degrees in other fields. Graduates from any of these programs are eligible to sit for the RN licensing exam, the NCLEX-RN, required by all states. Over 45% of today’s RNs began their education in associate degree programs; however, only 5.8% of associate degree (ADN) graduates between 1970 and 1994 went on to obtain a master’s degree in nursing or a doctorate by 2004, compared with 19.7% of RNs whose initial nursing education was a bachelor of science in nursing (BSN).\textsuperscript{49} Nonetheless, the educational preparation of nurses is improving, as illustrated in Figure 2.
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In 2008, 36.8% of all RNs held baccalaureate degrees and 13.2% had a master’s or doctoral degree in nursing. Between 1980 and 2008, the percentage of nurses with only a diploma decreased from 54.7% to 13.9%. Among those with advanced degrees, 375,794 had master’s degrees and 28,369 had doctorates.

Advanced Practice Registered Nurses
Advanced practice registered nurses (APRNs) are RNs who have received additional education to expand their scope of practice. They make up 8.2% of the RN population. As of 2008, there were 250,527 APRNs in the United States, an increase of 4.2% since 2004. The demand for APRN services has spread from primary care to all settings. There are four types of APRNs:

- Nurse practitioners (NPs), 63.2% of all APRNs (158,348), whose practice may include the assessment, diagnosis, and treatment of disease, albeit with a nursing lens that focuses on patient needs, health promotion, and self-care management.
- Clinical nurse specialists (59,242), who concentrate on nursing care specific to a population, setting, disease, type of care, or clinical problem; they provide direct care
to patients, assist with delineating best practices in care, and teach nurses and other health care workers how to improve the care they deliver to a population; their numbers are declining—by 22.4% since 2004—as nurses increasingly seek preparation as nurse practitioners.

- Certified nurse anesthetists (38,821) who provide the full range of perianesthesia services, including pain management.
- Certified nurse midwives (18,492), who focus on women’s health, including child-birthing and gynecologic care for women of all ages.51

**FIGURE 2.** Highest Nursing or Nursing-Related Educational Preparation, 1980–2008

Note: The totals in each bar may not equal the estimated numbers for registered nurses in each survey year due to incomplete information provided by respondents and the effect of rounding. Only those who provided nursing education preparation information are included in the calculations used for this figure.

Entry into these roles now requires a master’s degree. However, the American Association of Colleges of Nursing has called for the Doctor of Nursing Practice (DNP) to be the educational route for APRNs by 2015.

**Others Providing Nursing Care**

Hospitals and other health care organizations have often responded to the shortage of licensed nurses by developing new categories of workers, such as “patient care technicians” and “patient care associates,” often nursing assistants or medical technicians who receive additional training by the facility to take on more advanced technical aspects of acute care, such as dressing changes. These workers generally function under the supervision of licensed nurses (RNs or LPNs). In ambulatory care and the operating room, one can find patient care technicians and surgical first assistants who function under the supervision of physicians. Professional nursing organizations have resisted efforts to create new categories of workers who provide nursing care without supervision or oversight by licensed nurses, but the 2009 Institute of Medicine report, *Retooling for an Aging America: Building the Health Care Workforce*, encourages flexibility in developing new roles for health care workers to care for an increasing number of older adults.52

Additionally, family members provide nursing care that even health care providers find challenging, such as dressing complex wounds or bathing loved ones with dementia.53 There are over 44 million family caregivers over the age of 18 in the United States, providing care that has been valued at $375 billion annually.54 Nurses are increasingly involved in addressing the needs of family caregivers, advocating public policies that will support family caregivers, and partnering with social workers and other health care professionals to reform the health care system in ways that will better prepare family members to provide care in the home.

Although this chapter is confined to the licensed nursing workforce, there is an urgent need to understand and develop the capacity of unlicensed providers as well.

**Nurses’ Employment: Where Nurses Work (and What They Do)**

The majority (62.2%) of RNs worked in hospitals in 2008.55 This percentage will decline if the nation shifts from an emphasis on acute care to health promotion and chronic care management. Of RNs, 11% work in ambulatory care; 11% in public health or community health settings, including home care; 7% in long-term care facilities; 3% in school health; 3% in nursing education; almost 2% in “insurance claims and benefits”; less than 1% in occupational health; and about 0.4% in a policy, planning, regulatory, or licensing agency.56 These settings have different educational requirements.

**Hospital Nursing**

Nursing care is the core business of hospitals—people are seldom hospitalized unless they need nursing care. In hospitals, nurses assess patients with complex, often life-threatening health problems, monitor changes in patients’ conditions that could lead to complications, administer medications and check for adverse reactions, prevent hospital-acquired
infections, provide emotional support and teaching to patients and families, record the patient’s reactions to care, and participate in interdisciplinary team efforts to prepare the patient for discharge. Patients who only a few years ago would have been in intensive care units are now cared for on regular units (or “floors”), presenting challenges to so-called “floor nurses” who must have unprecedented knowledge and skills in managing complex care for seriously ill patients.

In 2004, almost 30% of all hospital nurses worked on a general or specialty inpatient unit and 17% in critical care. Some hospitals have all-RN staff. Others continue to use some LPNs, although the percentage of LPNs working in hospitals has declined in recent years. The clinical nurse leader—a new nursing role conceived in 2004 at a meeting of the American Association of Colleges of Nursing—is a master’s level staff nurse who has the additional training to examine quality-of-care outcomes and develop evidence-based practice for a clinical unit or a population of patients. Clinical nurse leaders are now used extensively by the Veterans Health Administration.

In the hospital setting, APRNs serve as nurse-midwives; surgical first assistants in the operating room; clinical nurse specialists who provide specialty consultation on diabetes, wounds, and myriad other clinical conditions; nurse anesthetists who provide perianesthesia care in both inpatient and outpatient departments; and nurse practitioners throughout the hospital.

Nurse managers or administrators oversee patient care units (formerly called nursing units) and are responsible for managing scores of staff members and multimillion-dollar budgets for personnel, supplies, and equipment. Increasingly, nurse managers have one or more master’s degrees in nursing, business, or health care administration. They focus on improving the quality and safety of care and use data to monitor and improve clinical and financial performance.

The hierarchy of nursing management usually includes a clinical director of nursing or a director of clinical services to whom a number of nurse managers report, and a chief nursing officer who is often the vice president for patient care services, responsible for interdisciplinary clinical services as well as nursing. Because of their clinical, management, and business acumen, nurses can be found in the roles of chief operating officer or chief executive officer in hospitals and health systems. Nurses also hold key positions in quality and performance improvement departments, infection control, employee health, and other departments. This description of nurse administrators applies to other health care settings as well.

Primary and Ambulatory Care
In primary and ambulatory care, nurses’ roles vary by educational preparation. Licensed practical nurses may conduct basic assessments of patients, administer medications, collect specimens, and provide basic teaching. RNs can do these tasks, as well as conduct higher-level assessments of the less obvious patient health needs, conduct common examinations, counsel patients and families about illnesses and their management, and provide telephone follow-up as needed.

Nurse practitioners perform comprehensive health assessments, diagnose and treat disease, suture wounds and do other technical procedures, and engage in all of the activities
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described for the RN. In 1999, there were 45,200 NPs in primary care; by 2005, the number was 82,622. Between the mid-1990s and mid-2000s, NPs were the fastest growing group of primary care providers, with an annual increase in the number of NPs per capita of 9.4%, compared with 3.89% for physician assistants and 1.17% for primary care physicians.60

Home Care
Nurses often describe the difference between hospital and home nursing in terms of who is in control. In hospitals, patients and families have little power, but in their own homes they are in control. In the home, as compared with the hospital, the nurse is a guest and becomes more of a partner with the patient and family. Obviously, home care does not provide the same on-site supports as hospital care, so nurses must be prepared to function independently while collaborating remotely with other providers of care. In patients’ homes, nurses conduct comprehensive assessments of patients, family members, and the living environment; reconcile multiple medications that could have adverse interactions; provide treatments such as complex dressing changes and administration of intravenous therapies; teach patients and family caregivers to manage their own care; communicate with other health care providers about patients’ conditions and coordination of care; and oversee the need for and performance of unlicensed home health aides.61

Hospice care includes an in-home component, and nurses are its backbone. They work with patients and family members to define the goals and priorities of care; manage symptoms, including pain; provide counseling about end-of-life options and palliative care; and offer emotional support, which extends to surviving family members after the patient dies.

Public Health and Community Nursing
Public health nurses have often served as the bridge between an individual or family and a population or community, just as they did in Lillian Wald’s day. They provide personal and illness care to the uninsured and Medicaid populations, conduct maternal–child health screenings, make follow-up home visits to at-risk patients, run clinics to screen for and treat infectious diseases and collaborate with other workers to stop their spread, provide immunizations, provide essential emergency services in natural and man-made disasters, and work with community leaders and government officials to design programs and policies that can promote the health of residents. Public health nurses also run community health programs and clinics. They comprise 30% of public health agencies’ staff and are the senior executive in 34% of the agencies.62,63

School Health
Although school nurses may be known for tending to playground injuries and taking temperatures of febrile students, these are only small parts of what school nurses do. For the most part, they have a role in injury prevention and treatment, screening for and responding to undiagnosed health problems, and providing case management and direct care. They provide health education for students and teachers, advocate for children and families, and develop health promotion strategies and programs such as nutrition and obesity prevention and management. School nurses also play a crucial leadership role in schools and as first
responders during disasters. For example, Mary Pappas, a school nurse in New York City, reported to the health department a sudden and dramatic increase in students with symptoms of the flu. This was the first outbreak of H1N1 in the city; her swift action helped contain the spread of the virus.

**Long-Term Care**

Only 6.3% of RNs work in nursing homes or extended-care facilities. LPNs and certified nursing assistants are the mainstay of providers in long-term care facilities. Almost 33% of LPNs work in long-term care. However, federal law requires a registered nurse to be the chief nursing officer, responsible for ensuring that standards of care in long-term care facilities are being met.

Continuing problems with the quality of care in long-term care facilities have led to calls for better training and supervision of nursing staff and for better enforcement of governmental standards for staffing. In recent years, nurses have been integral to the operation of community and home-based models that have become more popular ways to provide long-term care.

**Other Settings**

Occupational health nurses provide a variety of services to employees. As employers recognize the economic value of keeping employees healthy, nurses have played key roles in developing and providing on-site wellness programs. Nurses also work as educators in academia, researchers in clinical and academic settings, case managers in all health care settings, key providers of telehealth services, clinical educators for pharmaceutical and other product companies, policymakers, lawyers and legal nurse consultants who are highly sought after in medical malpractice cases, forensic experts, and journalists. Nurses work in almost every sector of society.

**Organized Nursing**

Joan Lynaugh, professor emerita at the University of Pennsylvania School of Nursing, has summarized the enduring conflicts that have resulted from a continuing need for more nurses:

1. Nurse leaders’ efforts to upgrade preparation for practice and to restrict numbers often compete with social desires to contain cost in providing nursing care.
2. Differentiation of nursing practice to improve quality through specialization conflicts with institutional needs for flexible generalist nursing staffs.
3. Nurse-controlled practice and differentiated practice, such as that of nurse practitioners and nurse-midwives, create fears of competition among physicians.

These conflicts have been a major focus of organized nursing, from the movement to secure registration for nurses in the early 1900s to current efforts to improve nurses’ working conditions and remove barriers to full utilization of advanced practice registered nurses.

Nurses have organized themselves in both professional organizations and unions, sometimes with one organization combining these dual missions. The Nurses
Alumnae was formed in 1900 and was the precursor to the American Nurses Association, founded in 1911. Other national nursing organizations emerged in the early 1900s, often around the registration movement, but only for whites. In 1908, the National Association of Colored Graduate Nurses formed, and it continued until 1952 when the ANA admitted nurses of color. In 1971, it reorganized under the name of the National Black Nurses Association because black nurses felt that the ANA was not meeting their interests and some state nursing associations had continued to discriminate against black nurses. Today, there are other nursing organizations dedicated to representing the interests and needs of specific ethnic nursing groups, such as the Philippine Nurses Association of America and the Hispanic Nurses Association.

As nurses specialized, so did nursing organizations. Today, there are over 100 national nursing associations. Two national organizations are devoted to advancing nursing education: the National League for Nursing, an organization that focuses on nursing education in general, and the American Association of Colleges of Nurses, which addresses baccalaureate and higher degree education. Both have organizational arms that accredit schools of nursing. Two national organizations represent nurse practitioners as a whole: the American College of Nurse Practitioners and the American Academy of Nurse Practitioners. Other organizations represent advanced practice registered nurses in specific roles, such as the National Organization of Nurse Practitioner Faculties, the American College of Nurse-Midwives, the National Association of Clinical Nurse Specialists, and the American Association of Nurse Anesthetists. Still other organizations are defined by clinical specialties, such as associations for nurses who focus on pain management, hospice and palliative care, plastic surgery, and intravenous therapy. There are also several organizations devoted to advancing nursing research.

Nurses have also organized into labor unions. Nurses’ frustrations with their working conditions led the ANA, in 1946, to encourage affiliated state nurses associations to serve as the exclusive collective bargaining agent for nurses. By 1972, over twenty unions unaffiliated with the ANA were organizing nurses. The unionization of nurses has often created rifts in the profession between pro-union and anti-union nurses, staff nurses and nurse administrators, and state nurses associations that embrace a role in collective bargaining and those that reject it. The ANA has struggled with its identity as a labor organization. It doesn’t engage in collective bargaining directly but has endorsed it as a necessary option to ensure the economic and general welfare of nurses.

Because of the ANA’s commitment to remaining a multipurpose professional organization, some of its member state nurses associations viewed the ANA’s support of collective bargaining as insufficient. Beginning in 1993 with the California Nurses Association, the largest state nurses’ association in the country, at least six state nurses’ associations have disaffiliated from the ANA in order to redirect dues into the state association’s own collective bargaining efforts. The ANA formed a union arm, the United American Nurses, in 1999 after a contentious fight with nonunion association members in right-to-work states. Two years later, the ANA affiliated with the AFL-CIO and secured a seat on its executive council. Then, in December 2007, the ANA ended its relationship with United American Nurses. These battles have taken a toll on organized nursing’s ability to increase its membership and present a united front. In 2010, only about 6% of the nation’s nurses were members of the ANA.
Other unions representing nurses include the Service Employees International Union, the United Federation of Teachers, and the American Federation of State, County and Municipal Employees. Approximately one-fifth of nurses are members of unions, a percentage that has remained constant since the 1990s. Despite the existence of a consortium of over 70 national nursing organizations called the Nursing Organization Alliance that focuses primarily on networking and sharing information, the profession has largely been unable to coalesce around many issues of great importance to nursing and the nation’s health. Notable exceptions have been the solid opposition to organized medicine on three fronts: its unilateral attempts to turn nurses into physician assistants in the 1960s; to define a new provider of nursing care who would be supervised by physicians (a “registered care technician”) during the shortage of the 1990s; and, more recently, to restrict the scope of advanced practice registered nurses. Early indicators suggest that national nursing organizations are also coalescing around the implementation of recommendations put forth in the 2010 Institute of Medicine report, *The Future of Nursing.*

**Nursing Research**

One of the agendas advanced by organized nursing has been building the profession’s scientific basis—an agenda first defined by Nightingale. Early nursing research focused on nurses and nursing education rather than nursing care. With the demand for more nursing faculty and federal support for the development of nurse scientists in the 1960s, formalized nursing research began to be generated, mostly by academics with doctorates. *Nursing Research,* the first nursing journal devoted to research, was launched in 1952. A decade later, the American Nurses Foundation had established a small research grants program. Research from the post–World War II years through the early 1960s included studies on end-of-life issues, post-operative vomiting, patient education, breastfeeding, and pain relief; but studies of nurses’ characteristics, attitudes, and behaviors proliferated. Leaders in the profession began to speak about an imperative for research that focused on practice.

Susan Gortner, former head of nursing research in the Division of Nursing of the Department of Health, Education, and Welfare, refers to the “transition years” for nursing research as the period between 1965 and 1985 when the number of nurses with PhDs increased, as did the federal financial support for nursing research. The Division of Nursing in what is now called the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services provided grants for nursing research training programs, as well as for research projects. The ANA established a Commission on Research in 1971 and a Council of Nurse Researchers in 1972. With support from the Division of Nursing, they provided the impetus for developing nursing research priorities.

But funding nursing research through the Division removed it from the domain of National Institutes of Health (NIH) and relegated it to the shadows of the scientific community. By the 1980s, nurse researchers were submitting grant proposals to the NIH but becoming frustrated with repeated rejections. These nurse researchers documented that the high NIH rejection rate was due largely to a poor match between the kinds of questions nurses wanted to explore and the NIH’s disease-oriented research agenda.
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In December 1984, an NIH Task Force Report on Nursing Research concluded that the mission of the NIH encompassed the goals and methods of nursing research. This provided nursing organizations with a rationale for the creation of a National Center for Nursing Research at the NIH, which was proposed as part of the NIH’s reauthorizing legislation in 1986. After a series of political battles, including overriding President Reagan’s veto, Congress authorized creation of the National Center for Nursing Research. In 1993, the Center was given the status of an institute within NIH—the National Institute of Nursing Research (NINR). The Institute’s research focus encompasses health promotion and disease prevention, quality of life, health disparities, and end-of-life care. In 2008, the NINR was budgeted $137.48 million, or 0.4% of the NIH annual budget of over $29 billion.77

CURRENT ISSUES AND CHALLENGES

The Nursing Shortage

Numbering more than three million, nurses are the largest group of health providers in the United States. There are more nurses today than ever before. Since 1980, the number of RNs has increased more than 90%.78 (See Figure 1.) But projections indicate that the United States will have half a million fewer full-time RNs than it needs by 2025.79

In 1987, professors Linda Aiken, from the University of Pennsylvania School of Nursing, and Connie Mullinix, from East Carolina University College of Nursing, documented that prior shortages of nurses were cyclical, responding to market forces.80 Their article was written during a significant shortage, and they cautioned that the current shortage and future ones were likely to be different from prior cycles. Because the demand for nurses was escalating with the aging of the country’s population, they correctly predicted a continuing shortage that would override the cyclical pattern of prior years. In fact, the demand for nurses is projected to increase by 2–3% a year for the next 20 years.81

Peter Buerhaus, a nurse and professor at the Vanderbilt University Medical Center, and his colleagues developed a model for forecasting the future size of the nursing workforce and have revised their estimates over time, as changes occur in the variables that affect how many people enter and stay in nursing.82 In 2008, they projected a shortfall of 500,000 RNs by 2025. This will be the largest shortage of nurses in history and will occur despite an easing of the current nursing shortage because of the recession. A community that becomes complacent about the temporary abatement in the shortage of nurses will be faced with a crisis if steps are not taken now to meet the future demand.

The nursing shortage affects all sectors of health care but has hit some areas harder than others. One of the most enduring shortages is in long-term care, which has experienced annual turnover rates of nursing personnel that exceed 100%. The 2008 Institute of Medicine report, Retooling for an Aging America, issued a number of recommendations related to ensuring a future workforce that is prepared to care for a growing population of older adults.83 Since 1995, the John A. Hartford Foundation has invested $75 million to develop the capacity of nurses and direct care workers to care for older adults.

Another area of concern is community-based nursing. As the United States looks for ways to shift the focus of health care from acute care to health promotion, disease
prevention, and chronic care management, the demand for nurses in community-based settings is expected to increase. Public health and home care agencies struggle to compete with acute care facilities in attracting nurses because of poorer wages and benefits.84

Factors Contributing to the Shortage
A number of factors have been identified as contributing to the shortage.

The Aging of the Nursing Workforce. The average age of a nurse is now 47 years and, as Figure 3 illustrates, is increasing, largely because of the drop-off in new recruits to the


profession during the 1990s and the increasing age of the average nursing student. Fifty-five percent of nurses who responded to the 2004 National Sample Survey of Registered Nurses said they intend to retire between 2011 and 2020.85

Staff nursing is physically demanding, and this becomes an increasingly significant problem for older nurses. One time-motion study of hospital staff nurses found that they walked between one and five miles per 10-hour-day shift.86 Nurses are at risk for back and other injuries from lifting patients; exposure to infectious agents such as MRSA, HIV, and the H1N1 influenza virus, and hazardous substances such as radiation and chemotherapy drugs; adverse effects of shift work, whether working nights or rotating shifts; injuries from the violent behavior of patients and others; and secondary post-traumatic stress disorder from witnessing trauma, child abuse, and other horrific conditions.87 The cumulative effects of these over two or more decades can take its toll.

**Difficulty of Recruiting People into Nursing.** Making nursing a more attractive career option means enhancing the public perception of nurses and the work they do, as well as ensuring good wages and job security. Particularly during economic downturns, people think about preparing for jobs that pay decently and are relatively secure, making nursing a good choice. When the economy weakens, nursing jobs are usually among those least threatened.

A severe shortage occurred in the 1980s as applicants and enrollments to schools of nursing declined dramatically. But by 2008, schools of nursing were turning away an estimated 99,000 qualified applicants to pre-licensure programs—almost 40% of those who applied—and more than 49,000 qualified applicants were turned away from baccalaureate and graduate programs.88,89 What changed?

One change is the public perception of nursing. From Sarah Gamp to sex object to physician’s handmaiden, accurate portrayals of nurses doing the intellectually and emotionally demanding work of nursing have been rare.90 Studies of nursing shortages repeatedly included recommendations that nurses change this image, although few of these studies dealt with the real factors that contributed to the cyclical shortages, such as low wages and poor working conditions.91 Nonetheless, by the twenty-first century, nurses viewed their profession’s image as an unnecessary and inaccurate barrier to ensuring an adequate supply of nurses.

In 2000, Johnson & Johnson launched a major initiative to promote nursing as a career—an unprecedented commitment by an American corporation. Called the Campaign for Nursing’s Future, J&J launched a Web site on nursing careers (www.discovernursing.com) and a major advertising campaign, Dare to Care—a theme that coincides with Reverby’s contention that nurses are duty-bound to care in a society that refuses to value caring.92 It has helped change the public’s image of nursing.93

**A Shortage of Faculty.** With pressure on the profession to increase the numbers of new nurses, new schools of nursing have opened and existing schools have expanded their program offerings and capacity. But the supply of nurses qualified to fill faculty positions is inadequate to meet the demand. The faculty vacancy rate for the 2009–2010 academic year was 6.6%,94 but this figure reflects budgeted positions and doesn’t adequately capture
the degree to which nursing programs could expand capacity to meet the demand for more nurses. In fact, more than half of the baccalaureate, master’s, and doctoral nursing programs in the country could expand enrollments if they could hire more faculty.95

The shortage of nursing faculty is related to three factors: the supply of available faculty, their educational preparation, and productivity.96

Supply of Faculty. The average age of nursing faculty is 53.5 years,97 so retirement is looming for many and promises to exacerbate the faculty shortage. Their salaries often pale in comparison with those of nurses in clinical settings, as well as with what faculty in medicine, law, and business earn.98

Education. Even if faculty salaries are improved, an insufficient number of graduate-level nurses are prepared to fill existing vacancies, and the pool of baccalaureate-prepared nurses who may eventually obtain advanced degrees is insufficient to ensure adequate numbers of qualified faculty in the future.99

Foundations and private donors, such as the Gordon and Betty Moore Foundation in California and the Donald and Barbara Jonas Center for Nursing Excellence in New York City, are providing scholarships for the doctoral education of nurses willing to commit to teaching. Private philanthropy, however, will not be sufficient to ensure that the nation has enough nursing faculty.

Productivity. Changing how nurses are educated could improve the productivity and efficiency of nursing faculty. Nursing’s approach to educating students has changed little over the last half century.100 Clinical experiences require a faculty member to supervise no more than eight to ten undergraduate nursing students, making this part of the curriculum expensive and faculty-intensive.

Some schools are exploring more productive approaches to clinical education. For example, the University of Portland School of Nursing has developed several “dedicated education units” (DEUs)—partnerships between the nursing school and clinical settings (particularly hospitals) where nursing students learn under the supervision of established clinicians. A clinical faculty coordinator from the school of nursing can be responsible for up to 28 students, working with a number of staff nurses from the DEUs who serve as clinical instructors to one or two students on an ongoing basis.101

Limited Clinical Capacity. Nursing schools’ access to the myriad clinical settings needed for a generalist nursing education is quite competitive in some areas of the country. Strategies to address this problem have included DEUs that can accommodate students on all shifts and simulation laboratories. The labs, however, are too expensive for some schools.

A new model of integrated nursing education that establishes collaborative partnerships between associate and baccalaureate degree programs provides another approach to reducing the competition among schools for limited clinical sites. Developed by professor of nursing Christine Tanner at the Oregon Health Sciences University’s School of Nursing, the so-called Oregon Model identifies the knowledge and competencies shared by associate
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and baccalaureate nurses, provides some courses that both groups take, and permits associate
degree students to pursue the baccalaureate degree with fewer credits than are required
by the usual RN-to-BSN programs. This model is being replicated in North Carolina,
New York, and elsewhere.

**Difficulty of Retaining Nurses.** Nursing will never be able to attract and retain enough
nurses unless fundamental improvements are made in work environments, staffing ratios,
and nurses’ roles. This is particularly true for hospitals and long-term care facilities.
In a study of nurses’ intentions to stay in their jobs, Aiken and colleagues found that 23% of
a sample of Pennsylvania nurses intended to leave nursing within a year, but fully one-third
of those younger than 30 planned to do so. In 2000, the percentage of nurses with active
RN licenses who worked in nursing decreased for the first time by one point (to 81.7%),
which equates to 27,000 nurses.

Even new nurses may not last long in hospitals. Almost 88% of all nurses start their
careers in hospitals, regardless of future ambitions. Hospitals are seen as the place for
gaining the necessary experiential knowledge of practice. But a new graduate is hardly
prepared for the realities of practice. Christine Kovner and Carol Brewer, professors of
nursing at New York University and the University of Buffalo, respectively, are conduct-
ing a multistate, longitudinal study of new nurses’ turnover rates, attitudes, and intentions
regarding their first professional nursing jobs. Among the early findings: new nurse turn-
over is 18% within one year and 26% within two years of starting their jobs. This is lower
than previous estimates but still costly to hospitals. The cost of replacing one staff nurse
has been estimated at about $64,000, but the cost of replacing new nurses is higher
because of the additional supervisory and training costs.

Factors associated with new nurses’ dissatisfaction with their jobs include high patient
caseloads, mandatory overtime, and shift work. Twenty-six percent of new nurses
find it difficult to do their jobs because of insufficient supplies and equipment.

Some nurses who leave their jobs will not seek another job in nursing. In 2004,
approximately 4% of nurses worked outside of nursing and another 12% were unem-
ployed; both groups reported dissatisfaction with the workplace (for example, burnout,
the physical demands of the job, scheduling problems) as the driving force behind their
leaving nursing. Although the economic recession has reduced the number of nurses
leaving the profession, this is likely to change once nurses are financially able to retire or
to leave high-paying hospital jobs. Among the reasons why it is difficult to retain nurses
are these.

**Poor Staffing and Overtime.** Nurses become dissatisfied and have higher rates of
burnout when their caseloads are too high and patient safety is jeopardized. In Aiken
and her colleagues’ study of nurses’ experience of working in hospitals, inadequate staff-
ing was a major concern among the American nurses, with only about 34% reporting that
staffing was adequate. Some hospitals have responded to shortages of RNs by increasing
the use of nonnurses or using other staffing strategies that may have untoward immediate
and long-term effects, including causing more nurses to leave their jobs and jeopardizing
patient safety.
A particularly egregious example of short-sighted staffing policies is the use of mandatory overtime, the practice of forcing nurses to work additional hours beyond the scheduled shift. Supervisors and administrations often pressure nurses to work long hours under threat of disciplinary action, up to and including termination.

Despite many state boards of nursing having adopted policies stating that the refusal of mandatory overtime does not constitute patient abandonment, hospitals have threatened to report nurses refusing to work overtime to the state board for patient abandonment. During the shortage of the 1980s and 1990s, some hospitals—instead of creating working conditions that would attract and retain nurses, as Magnet hospitals were doing—relied on mandatory overtime. Recent studies show the percentages of nurses who worked mandatory overtime ranging from 13% of new nurses to 16.7% of all nurses. In the latter study, 24% of nurses who were single parents reported that they worked at jobs that had mandatory overtime.

Research has demonstrated that nurses working more than 12 hours a day or 40 hours a week have a far greater likelihood of making an error. Even though two-thirds of overtime hours are voluntary, they should be restricted to protect the health of both nurses and patients.

Unions and state nurses associations have led efforts to ban mandatory overtime and set minimum nurse staffing levels. In 1999, the California Nurses Association and the Service Employees International Union led a successful campaign to mandate minimum nurse-patient staffing ratios in California—the only state to do so. In 2004, California hospitals were required to have no more than six patients for each licensed nurse (RN or LPN) on a medical or surgical unit. The ratio decreased to five patients per nurse in 2005.

The evidence to date of the lower ratios’ impact on outcomes of care and nurse satisfaction has been equivocal. Anecdotal reports indicate that some hospitals are meeting these mandates by hiring more temporary staff and reducing unit support staff, such as nursing assistants and unit secretaries, leaving nurses to do work that someone with less education could perform for lower pay. Obviously, this undermines the purpose of increasing the licensed nursing staff. Some hospitals, especially public hospitals, may also be reducing services and expenditures on other essential services. Nonetheless, a comparative study of staffing and patient outcomes in California, New Jersey, and Pennsylvania two years after the California ratios were implemented found that the California nurses cared for one to two patients fewer than RNs in the other states and this improved staffing was associated with lower rates of patient mortality, nurse burnout, and job dissatisfaction.

Conditions of hospital participation in Medicare require that the nursing service must have “adequate numbers” of licensed registered nurses, licensed practical (vocational) nurses, and other personnel to provide nursing care to all patients as needed, but this language is vague. Some states, such as Oregon, now require hospitals to involve nurses in setting unit-specific staffing ratios and have regulations mandating minimum nurse–patient staffing ratios in specialty areas; but attempts to replicate the California model have been unsuccessful.

Hospitals and long-term care facilities have also relied upon foreign nurses to improve staffing. Foreign-born nurses make up approximately 14% of the RN workforce in the United States, up from 5.1% in 1998, although not all of these were trained in foreign
Critics have challenged the recruitment of foreign nurses as a way of alleviating the nursing shortage for a number of reasons:

- Cultural differences may result in care that is technically proficient but lacking in the expected psychosocial dimension.
- Filling vacant positions with immigrant nurses relieves the institution of its responsibility to create working conditions that will be effective in recruiting and retaining American nurses. In addition, foreign nurses are often afraid to speak out about poor working conditions or to join union or advocacy activities because of fear that they will be deported. Their American colleagues sometimes become resentful of colleagues who will not stand with them in fighting for improved working conditions for all nurses.
- Recruitment of nurses from underdeveloped countries may worsen shortages in the home country and has been framed as immoral unless some exchange is made for the home country’s investment in training the nurse.
- Some institutions or recruiting agencies have exploited immigrant nurses, providing them with pay and benefits that are lower than their American counterparts, inadequate housing, and other treatment that has resulted in accusations that poor recruiting practices can lead to a kind of human trafficking.

**Wages.** In 2009, the U.S. Department of Labor reported a median annual salary for RNs of $62,450 in 2008, with the lowest 10% earning less than $43,410 and the highest 10% earning more than $92,240. Nurses’ wages have increased over time, but they have often lagged behind what one would expect with an increase in demand during shortages. This may signify biases against women’s work and possible collusion among hospitals to suppress wages. Indeed, in 2006 anti-trust class action suits were filed against health systems in Albany, Chicago, Memphis, Detroit, and San Antonio for such collusion. In 2009, Northeast Health in Albany settled the suit and agreed to pay nurses $1.25 million in back wages.

Increasing nurses’ pay will probably not suffice to retain all nurses. One estimate concluded that to end the nursing shortage solely by means of offering better pay, inflation-adjusted wages would have to increase between 3.2% to 3.8% a year until 2016. Given the current pressure to decrease health care costs during an economic downturn, such pay increases are unlikely.

**Other Factors.** There are other ways to create supportive work environments, such as offering child care services and flexible scheduling options to ease the conflict that nurses often feel when job demands compete with the needs of their families. Supportive work environments also advance nurse–physician communication by treating frontline nurses as equal members of an interdisciplinary team, giving nurses authority that matches their responsibility for the lives of patients, and engaging nurses in decision making within their organizations.

**Potential Solutions to the Nursing Shortage**

Hospitals and other health care organizations responded to nursing shortages through a variety of strategies, ranging from increasing the use of staffing agencies and foreign
nurses to investing in the education of new nurses; these efforts met with varying degrees of success. Several strategies are highlighted below.

**Creating Environments for Excellence in Nursing: Magnet Designation.** The development of the Magnet program by the American Nurses Credentialing Center was based on research conducted under the auspices of the American Academy of Nursing that identified 14 factors that support the development of excellence in nursing within an institution, including:

- A participative management style that encourages staff participation in decision making at all levels
- A chief nursing officer who is visible and accessible at the highest levels of the organization, including the board of trustees
- A pervasive sentiment among top administrators that nurses are key to the hospital’s success
- High-quality, well-educated nurses as leaders throughout the organization
- Decentralized organizational structure and local decision making
- Favorable nurse–patient ratios and recruitment of well-educated nurses
- Personnel policies that include competitive salaries and benefits for nurses, work schedules that meet the needs of the personal lives of staff, and opportunities for nurses to be promoted with identifiable career ladders
- The primacy of high-quality patient care and staffing
- The use of professional practice models that give nurses the authority and autonomy to match their responsibility and encourage them to innovate
- Excellent nurse–physician relationships, along with well-tuned interdisciplinary teams that accord equal status to nurses
- Investments in nursing staff development, continuing education, career development, and orientation

Nearly seven years after the original research identifying workplace characteristics that promote excellence in nursing, the American Nurses Credentialing Center developed criteria for hospitals to apply for “Magnet designation” for excellence in nursing. The Magnet designation can be acquired by long-term care facilities, and efforts are underway to develop criteria for home care agencies. Today, more than 350 health care organizations in the United States and internationally have Magnet recognition and many other hospitals are pursuing the “Magnet journey.”

Some, including this author, believe that the Magnet program, although not perfect, has been one of nursing’s best tools for spurring workplace changes necessary to retain nurses and promote safe, high-quality care. The research on Magnet hospitals is complicated because Magnet designation is a proxy for specific characteristics that may be shared with hospitals that have not pursued the designation. Nonetheless, studies have found that Magnet hospitals have a 4.6% to 7.7% lower mortality rate, higher patient satisfaction, and
lower levels of staff burnout and job dissatisfaction than non-Magnet hospitals.\textsuperscript{143,144,145,146,147} Hospitals have found that the designation makes good business sense. They refer to their Magnet status in marketing efforts, and it helps them save money on risk payouts and reduce spending on nurse recruitment and orientation.\textsuperscript{148} Today, \textit{U.S. News and World Report} includes Magnet status in its scoring of America’s best hospitals.\textsuperscript{149}

\textbf{Engaging Nurses in Redesigning Work Processes: Transforming Care at the Bedside (TCAB).} In its effort to address the nursing shortage, the Robert Wood Johnson Foundation recognized that some of the most neglected nurses were those on medical-surgical units of hospitals—the “floors” or units that usually account for the greatest proportion of a hospital’s beds. The Foundation contracted with the Institute for Healthcare Improvement to design a program that would empower nurses on medical-surgical units as change agents. The program is called Transforming Care at the Bedside.

Transforming Care at the Bedside requires support from the top levels of the organization, including the chief executives and board of trustees, but it is not a top-down approach. Rather, it empowers staff at the unit level to identify issues that impede safe, satisfying, efficient care, and provides them with tools for engaging in “rapid-cycle change”: it trains them in generating ideas to address the issues, testing them on a small scale, evaluating them, and determining whether to abort, adapt, or maintain and spread the change.

Examples of changes made by program’s units include developing a color-coded system for identifying when conditions on the unit had become unsafe for new admissions and transfers,\textsuperscript{150} reducing the time nurses spend “hunting and gathering” supplies and equipment by moving commonly used items into patients’ rooms,\textsuperscript{151} and using laptop computers at the patient’s bedside to communicate with off-unit physicians via video.\textsuperscript{152}

UCLA professor and researcher Jack Needleman and his colleagues evaluated Transforming Care at the Bedside and concluded that it was effective in reducing the turnover rate of nurses, making care safer, improving patient satisfaction, and increasing the time that nurses spend in direct patient contact.\textsuperscript{153,154,155} Nursing leader Linda Burnes Bolton and research scientist Harriet Aronow, both of Cedars-Sinai Medical Center in Los Angeles, have made a business case for the program by looking at the cost of conducting the program and the savings from improved outcomes and reduced turnover of nurses.\textsuperscript{156} In 2010, there were over 300 U.S. hospitals and other countries engaged in Transforming Care at the Bedside.

\textbf{Retaining Nurses: Internships, Residencies, and Retraining.} To attempt to retain new nurses, hospitals have developed internships and residency programs that provide mentorship, education, and greater support, usually for the first year of practice.\textsuperscript{157,158,159} However, these programs vary tremendously in quality, focus, and duration, depending on the hospital’s resources. For example, if the residency includes assigning the new nurse a smaller caseload for a substantial period of time, the hospital will need more nurses to provide care during the residency period.

Colleen Goode, professor at the University of Colorado College of Nursing, and her colleagues have argued that new graduates should not be expected to move into full-time clinical practice without some continued training and support.\textsuperscript{160} They propose that nurse residency programs be standardized, much as medicine has done. The Commission
on Collegiate Nursing Education, the accrediting arm of the American Association of Colleges of Nursing, has approved standards for accrediting postbaccalaureate residency programs.

Initiatives are also needed to reduce the physical demands of hospital nursing and to provide alternative work situations for aging nurses (along with the education and training needed to shift their work roles). Ergonomic changes in the workplace can ameliorate the stress of working in demanding environments—for example, redesigning units to reduce the amount of walking, using available technology and equipment for safe patient handling, and flexible scheduling that permits 8-hour instead of 12-hour shifts.

In addition, older nurses from acute care, ambulatory care, or home health settings would be well suited for positions in telehealth that focus on care coordination and chronic disease management. Nursing for Life is a career transition program provided online by the College of Nursing at Michigan State University to help nurses move into these more age-friendly roles. Launched in 2008 with grants from Blue Cross Blue Shield of Michigan and the Robert Wood Johnson Foundation, the program strives to keep in the workforce those nurses who may consider leaving because of the physical challenges of acute care or dissatisfaction with the work. Nurses complete self-paced modules and a supervised clinical experience in one of four areas: home, ambulatory, hospice and palliative, or long-term care (other areas will be added). As of January 2010, 43 nurses had completed or enrolled in the program. Eighty percent of those who have completed the program found a position in the area they studied.161

**Expanding Educational Capacity.** The Nurse Training Act, Title VIII of the Public Health Service Act, which was signed into law in 1964 and today is administered by the Health Resources and Services Administration (HRSA), provides the largest source of federal funding for the education, recruitment, and retention of nurses. In fiscal year 2010, this support amounted to nearly $244 million. Table 1 shows the various nursing initiatives funded under Title VIII from 2005 to 2010.

Funding for Title VIII was flat until 2010, with a decline in real dollars and 21% and 28% decreases in the numbers of students supported in 2007 and 2008, respectively. In 2002, Congress passed the Nurse Reinvestment Act that includes faculty educational loan forgiveness and continues as part of Title VIII. But the funding increase was modest, at best.

Other sources of support for nurses’ education, training, and workforce development are Title VII of the 1963 Public Health Act, which was enacted to encourage a primary care workforce (its funding level today is one-tenth of what it was in the mid-1970s, having decreased from $2.5 billion per year to $222 million),162 the National Health Service Corps, which supports health care providers, including nurses, who agree to work in underserved areas, and the American Recovery and Reinvestment Act—the economic stimulus package signed by President Obama in 2009—that included $500 million for various health care shortages, of which $200 million was designated for nursing.

On the whole, funding for nursing education pales in comparison with funding for medical education. For example, Medicare funding for Graduate Medical Education (GME) has included only a small percentage for nursing education, and that has been restricted to the dwindling number of hospital diploma schools of nursing.
Moreover, there is concern that the federal government’s approach to funding for healthcare workforce development is outdated. Federal spending for medical education through Medicare GME funds alone is $12 billion annually (FY 2009), whereas nursing and all other health professions collectively receive only $524 million from HRSA for education and development in primary care, general dentistry, nursing, and for providers to work in medically underserved communities and in shortage specialties. Only $171 million of the HRSA money is specific to nursing workforce development.163

The Affordable Care Act of 2010 authorizes increased funding for nursing education under Title VIII of the Public Health Service Act, as well as expansion of the National Health Service Corps and other programs to increase the supply of nurses, particularly those delivering primary care. It authorizes a Medicare Graduate Nurse Education Demonstration Program that provides funding to five hospitals that partner with schools of nursing and community-based clinics for the clinical training of APRNs.

However, whether Congress will appropriate funding for these activities remains to be seen. Regardless, the nation cannot rely solely on federal support to build its educational capacity. An example of a nongovernmental effort is the Center for Championing Nursing in America. In 2008, the Robert Wood Johnson Foundation awarded $10 million to AARP over a five-year period to create the center. Its initial work has targeted the development of multisector partnerships in key states to build educational capacity in various ways, such as funding scholarships and expanding educational sites.

Hospitals and other health care organizations have supported faculty positions, provided loans and scholarships to students, and invested in creative initiatives to address the

| TABLE 1. Title VIII Nursing Programs—Funding from FY 2005–2010 |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Advanced Education Nursing | 58,160           | 57,061           | 57,061           | 61,875           | 64,438           | 64,438           |
| Nurse education, practice and retention | 36,468           | 37,291           | 37,291           | 36,640           | 37,291           | 39,896           |
| Workforce diversity | 16,270           | 16,107           | 16,107           | 15,826           | 16,107           | 16,107           |
| Loan Repayment and Scholarship | 31,482           | 31,055           | 31,055           | 30,512           | 37,128           | 93,864           |
| Comprehensive geriatric education | 3,450            | 3,392            | 3,392            | 3,333            | 4,567            | 4,567            |
| Nursing faculty loan program | 4,831            | 4,773            | 4,773            | 7,860            | 11,500           | 25,000           |
| Total, Title VIII Nursing | 150,661          | 149,679          | 149,679          | 156,046          | 171,031          | 243,872          |

Note: The year-long CR passed by the House Dec. 8 included $633 million for Titles VII and VIII. No program-specific funding amounts have been provided.

Adapted from President’s Budget, HRSA Budget Justification, P.L. 111-117, Senate Report No. 111-243.
shortage. But they are unlikely to be able to invest more. With the passage of health care reform, there are opportunities—and perhaps a mandate—for hospitals to rethink how they use nurses.

**Reducing the Demands on Nurses’ Time.** As noted earlier, there are more nurses today than ever before, and still there are not enough. What can be done to reduce the demand for nurses or make more efficient use of them?

In 2004, the Robert Wood Johnson Foundation funded the Center for Health Design to examine the evidence linking hospital design and patient outcomes, patient satisfaction, staff satisfaction, and staff efficiency. Its review of over 600 rigorously designed studies found that good design can reduce staff stress and fatigue, increase efficiency and effectiveness in delivering care, promote patient safety, and improve outcomes and overall health care quality.

For example, hospital staff nurses spend almost one-third of their time walking; another third is spent on documentation. Only about 30% of medical-surgical nurses’ time is spent in the patients’ rooms. This allocation of time and focus depends upon the layout of the unit, the available technology (including whether an electronic medical record is accessible in each patient’s room), and the way care processes are designed.

Technology, which is becoming more pervasive in all health care settings, is often assumed to expedite or facilitate care delivery and make care safer. But these assumptions have been questioned in a technology project undertaken by the American Academy of Nursing’s Workforce Commission. The Technology Drill Down project examined the workflow of nurses in more than 200 units in 25 hospitals. Nurses reported equipment malfunctions, problems with interoperability of various systems, inefficient technology (including bar coding), and a lack of availability of hardware (whether computers or so-called smart pumps for intravenous infusions) that impeded their work. They also identified how technology could help them in their work, generating nearly 600 ideas.

In 2008, The Joint Commission released its *Guiding Principles for the Development of the Hospital of the Future*, which contains principles on matters such as staffing, safe patient handling, and physical design that could make hospitals and other health care facilities safer and more efficient. A new Hill-Burton Act could stimulate the redesign of hospitals in ways that would improve nurses’ job satisfaction, with The Joint Commission guidelines serving as criteria for public grants for infrastructure development and modification or enhanced payment by public and private payers—but only with nurses at decision-making tables every step of the way.

**Building an Educated Workforce to Meet Contemporary and Future Needs**

The rise of collegiate nursing programs and decline of hospital diploma programs has been a deliberate change recommended by many national councils and commissions. Figure 4, which illustrates the 40-year trend in graduations from diploma, associate degree, and baccalaureate degree nursing programs, also shows that enrollments in schools of nursing are at an all-time high. Although some have challenged the need for increasing the number of new nurses, the figure reinforces the argument that the supply of nurses is unable to keep up with the demand.
Educational Requirements for Entry into Practice

For years, the nursing community has argued over whether the entry point into professional practice should be the bachelor of science in nursing (BSN) or the associate degree in nursing (ADN). Arguments in favor of the BSN include:

- Contemporary professional nursing practice requires the breadth of education, especially in humanities and social sciences, that only a baccalaureate degree can provide.
- Nurses will not have parity with other health professionals without this minimum preparation (pharmacists, physical therapists, and other clinicians are required to have a clinical doctorate).
- Baccalaureate programs give nurses the basic knowledge of research needed to meet the current mandate for evidence-based practice.
- Baccalaureate programs also provide nurses with needed leadership skills.

Arguments against the BSN as the entry level into professional practice include:

- New nurses from ADN programs do as well, if not better, than BSN graduates on the licensing exam (NCLEX).
- Community colleges provide affordable access to a high-quality education that may be, but does not have to be, the end point in a nurse’s career path.
- The nation needs more nurses than baccalaureate programs can produce.
The so-called “1985 Proposal” by the ANA and the New York State Nurses Association was an attempt to require professional nurses to hold a baccalaureate degree. It failed. Only North Dakota passed such legislation, but it was later reversed.\textsuperscript{173}

There is some evidence that hospitals with a higher proportion of nurses holding baccalaureate or higher degrees have better clinical outcomes.\textsuperscript{174,175,176} This has led hospitals and other health care organizations to look for nurses with the BSN, particularly since 2009 when the recession eased the nursing shortage in some communities. The push for Magnet designation has also contributed to hiring preferences for nurses with more education.

Certainly, nursing has one of the best career and educational ladders of any health profession. Many potential students are unable to afford the cost of a four-year BSN education.\textsuperscript{177} Those with an ADN can get a BSN in two years or less through RN Pathway programs that many schools of nursing in universities now offer. Employers often underwrite, to some degree, nurses who want to continue their formal education. Although nursing’s educational ladder should lead to significant numbers of ADN nurses moving on to the BSN and BSN nurses acquiring a graduate degree, the number who have actually done so has been disappointing.\textsuperscript{178}

The BSN in 10 is a new approach to increasing the number of nurses with baccalaureate degrees, whereby states would require associate degree and diploma graduates to secure a BSN within ten years of their initial graduation in order to continue practicing as a registered nurse. Resistance has come primarily from community colleges, but opposition may lessen if creative approaches are developed to implement the BSN in 10—for example by having community colleges offer baccalaureate degrees, as is happening in Florida, or by expanding online programs for registered nurses seeking the BSN, such as the Multi-State Approach to the Preparation of Registered Nurses provided by the Western Governors University.\textsuperscript{179}

Others argue for graduate preparation for nurses who want to stay in practice. A 2010 report by the Carnegie Foundation for the Advancement of Teaching, \textit{Educating Nurses: A Call for Radical Transformation}, recommends an MSN in 10, calling for entry into professional nursing practice to be at the baccalaureate level, accompanied by the expectation that graduates will obtain the MSN to continue to practice.\textsuperscript{180} Shortly after the report was released, the American Association of Community Colleges issued a statement opposing this recommendation, noting that, because associate degree programs produce the majority of new nurses, this change would “constrict the pipeline,” exacerbate the shortage, and limit access to nursing care needlessly.\textsuperscript{181} The National League for Nursing, which promotes excellence in nursing education at all levels, echoed this criticism,\textsuperscript{182} whereas the American Association of Colleges of Nursing, which represents baccalaureate and higher degree nursing education, supported the report’s recommendation.

Increasing the number of nurses with higher degrees may not, by itself, be sufficient to ensure a well-prepared nursing workforce. Increasingly, health care analysts and visionaries recognize that nurses are key to a high-functioning, complex health care system; and nursing education may have to change the way it prepares nurses to work in this system. The 2010 Carnegie report acknowledges the difficulties in teaching the large amount of material that nurses may need. It recommends a shift toward a patient-centered (rather than setting-centered) approach that focuses on the development of reasoning and judgment needed in specific clinical situations. This can be done only if there is better integration of the theory and clinical aspects of nursing education. The Carnegie report is expected to spur experimentation in nursing education.
Advanced Practice Registered Nursing Education
State statutes and regulations define the scope of practice of APRNs in different ways; as a result, an inconsistent patchwork of policies governing APRN education, licensure, and practice has evolved. For example, APRNs in New York do not need national certification to practice, but they do in Iowa. Nurse practitioners in New York must work under a formal collaborative practice agreement with a physician, whereas those in Iowa can practice without such an agreement. The National Council of State Boards of Nursing recognized that this lack of uniformity is confusing to the public, restricts mobility of APRNs across state lines, and limits federal approaches to removing barriers to APRN practice. Working with organizations representing the licensure, accreditation, certification, and education of APRNs, the council developed a consensus document that state boards of nursing and other concerned parties will use to develop uniform approaches to regulating APRNs.\textsuperscript{183,184} The proposed regulatory model includes:

- All advance practice nurses will be referred to as advanced practice registered nurses (APRNs).
- The credential will be “APRN, CNP” for certified nurse practitioners.
- Each APRN will declare a focus on one of six populations: neonatal, pediatrics, women’s health or gender related, adult-gerontology, individuals across the lifespan or families, or mental health.
- APRNs must complete an accredited graduate-level educational program in the specific APRN role that includes core courses in physiology/pathophysiology, health assessment, and pharmacology.
- APRNs must successfully complete a national certification exam.
- Additional certification in a specialty can be attained in areas such as oncology.
- Existing advanced practice registered nurses will be grandfathered in.

The time line for implementation is 2015. The challenge in doing so will be securing statutory and regulatory changes at the state level. As of 2010, 17 state boards of nursing reported having plans to implement the consensus model.\textsuperscript{185}

Recently, a debate has arisen around the preparation of APRNs. In 2004, the American Association of Colleges of Nursing proposed a new entry-level credential for APRNs: the doctor of nursing practice, or DNP. It did this for a couple of reasons. First, the amount of time APRNs spend acquiring the master’s degree often exceeds the hours that other disciplines, such as physical therapists, spend in acquiring a clinical doctorate. Other health care disciplines have moved to the clinical doctorate; why shouldn’t nursing? Second, master’s programs for APRNs focus primarily on providing care to individual patients. For APRNs to serve as clinical leaders, they need a better grounding in aggregate-level analyses in order to evaluate evidence of best practices for specific populations and engage in translational efforts to improve care.

Arguments against the DNP have included the following:

- Given the cost and longer course of study, the number of nurses who will pursue advanced practice nursing will decrease.
Some schools of nursing are in colleges that are not authorized to grant doctorates so the number of programs available to prepare advanced practice registered nurses will decrease.

Fewer nurses will pursue the PhD, undermining gains that nurses have made in academia and the ability of the profession to produce the research needed to define best clinical practices.

The gulf between academicians (PhD) and clinicians (DNP) will widen.186

One particularly controversial development was initiated by the Council for the Development of Comprehensive Care, an interdisciplinary group affiliated with the Columbia University School of Nursing whose mission is “to develop and promulgate the clinical doctoral role and measurable standards of practice through certification.” It negotiated with the National Board of Medical Examiners to develop a certification examination in comprehensive care that is based upon Part III of the U.S. Medical Licensing Exam (50% of the first cohort of DNP graduates who sat for the exam passed it). This step brought fierce objections from organized medicine. Moreover, physicians objected to nurses being referred to as “doctor” and have proposed state legislation to restrict the use of the title to physicians, osteopaths, dentists, and, in some cases, psychologists.187

Despite concerns from within the nursing profession about whether the DNP should be a research degree and whether there should be a residency or other practice requirement, DNP programs have proliferated. As of 2010, there were over 120 DNP programs and an estimated 161 more are under development. The DNP is here to stay, but continued refinement of the curriculum, certification standards and methods, and experience or residency expectations are likely.

Funding Support for a Better-Educated Nursing Workforce

The path to a better-educated nursing workforce will require the improved public and private financial support outlined earlier in this chapter. Through their grant making, HRSA and private foundations can stimulate innovations in nursing pedagogy. State licensing boards will need to develop regulatory flexibility to permit experimentation with curricula that deviate from traditional approaches.

Some state nursing boards are ready to be flexible. For example, Christine Tanner and colleagues who are part of the Oregon Consortium for Nursing Education negotiated with the Oregon State Board for Nursing to try a new curriculum.188 The curriculum is being replicated elsewhere. The Jonas Center for Nursing Excellence and the Robert Wood Johnson Foundation’s Partners in Nursing initiative have provided funding for schools in New York City and North Carolina to replicate or adapt the Oregon model.

Full Utilization of Advanced Practice Registered Nurses

As the education and roles of APRNs evolved and changes in state nurse practice acts permitted greater degrees of independent practice, physicians became concerned about losing control, and they challenged APRNs on the grounds of patient safety and quality of care.189,190 The challenges continue. In 2009, the American Medical Association circulated
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a series of documents on the scope of practice of other health care professionals, whom they referred to as “limited licensed providers.”

The series, called the *AMA Scope of Practice Data Series: A Resource Compendium for State Medical Associations and National Medical Specialty Societies*, targets nurse practitioners, nurse-midwives, and nurse anesthetists, as well as nonnurse professionals who have gained greater independence from physicians, such as optometrists, podiatrists, physical therapists, and family therapists. The last document in the series claimed, despite the evidence to the contrary, that nurse practitioners must be supervised by physicians in order to ensure safe, quality patient care.

Clinical Outcomes and Advanced Practice Nursing

So what is the evidence on the outcomes of care provided by APRNs? Scores of studies, including several systematic reviews and meta-analyses, report remarkably consistent findings. As long ago as 1986, the U.S. Office of Technology Assessment conducted an analysis of the care provided by nurse practitioners, nurse-midwives, and physician assistants; it concluded that they provided care comparable to that of physicians and were often better at communicating with patients.

Subsequent studies have demonstrated that nurse practitioners have clinical outcomes comparable to those of physicians for the primary care services that they are able to provide (which the Office of Technology Assessment estimated to be up to 90% of primary care in 1986). A 1995 meta-analysis of 38 studies of nurse practitioners and nurse-midwives—which met rigorous criteria—found that nurse practitioners provide care that is comparable to physicians, they are better on health promotion, and they elicit higher patient satisfaction.

One study comparing the outcomes of patients cared for by nurse practitioners and by physicians in five primary care practices in New York attracted great attention because of its randomized design and its publication in the *Journal of the American Medical Association*. Mary Mundinger, former Dean of the Columbia University School of Nursing, and her colleagues found that the two professions' practices were comparable in terms of resource utilization, clinical outcomes, and patient satisfaction over six months and two years.

Despite these findings, calls for more research confirming the safety and quality of nurse practitioners continued, as did organized medicine's opposition to unsupervised nurse practitioner practice.

In 2004, the Cochrane Collaboration published a systematic review of 16 studies that compared the outcomes of APRNs and physicians providing similar primary care services. The nurse practitioners and physicians were similar in patient outcomes, care processes, resource utilization, and cost of care. The review questioned whether the presence of the nurse practitioners actually increases access to care and thereby increases costs, despite the lower pay of nurse practitioners compared with physicians.

This question highlights the limitations in current cost analyses conducted by the Congressional Budget Office. When asked to evaluate the financial impact of federal policies that would improve access to APRNs, the Congressional Budget Office generally assumes that increasing access to any group of health care providers will result in increased costs because more people will use the services. This assumption seems unwarranted as
the nation expands health insurance coverage for millions of Americans and as evidence mounts that expanding primary care can reduce the use and cost of emergency and acute care. 

In brief summary, the evidence shows that:

- APRNs improve access to care for homebound elderly, nursing home patients, low-income pregnant women, and people living in rural areas. They reduce length of stay and cost of postoperative cardiovascular care and neonatal care. Clinical nurse specialists have reduced the rate of smoking among people with respiratory disease.

- Nurse anesthetists provide most of the anesthesia care to underserved populations in rural America and augment the surgical capacity of major academic medical centers in all areas of the country. Studies of outcomes of anesthesia provided by nurse anesthetists with and without anesthesiologist supervision have shown mixed results.

- The maternal and child outcomes of care provided by certified nurse-midwives are comparable to or better than those of obstetricians when caring for low-risk women. A systematic review published in 2009 by the Cochrane Collaboration of 11 studies with over 12,000 deliveries concluded that nurse-midwifery care was associated with lower rates of fetal loss before 24 weeks gestation, hospitalization, regional anesthesia, episiotomies, and use of forceps or other instruments during childbirth; higher rates of spontaneous vaginal delivery, breastfeeding; and no adverse outcomes.

These are only highlights of some of the overwhelming evidence documenting the safety and quality of APRN practice.

**Barriers to Full Utilization of APRNs**

Is physician supervision of APRN practice necessary to attain these outcomes? When APRNs practice in rural areas or underserved urban communities, the “supervision” may be miles away and amount to someone with whom the APRN can consult or refer difficult cases. But knowing when to consult another colleague is a hallmark of any wise health care professional. When laws or regulations require on-site supervision or otherwise restrict APRN practice, access to and the cost of health services may be affected adversely.

In 1992, Nichols estimated that it was costing the nation between $6 and $8 billion for inefficient and underutilization of APRNs. Two Institute of Medicine studies recommended removing the barriers to full utilization of APRNs so the nation can meet the need for primary care and other health care services—a need that will be increased by the Affordable Care Act’s expansion of insurance coverage.

**Scope of Practice.** In the early years of the APRN movement, NPs were certified and practiced under the direction of or in collaboration with a physician. Their educational preparation was limited to programs ranging in length from six weeks to one year, until the profession recognized that these APRNs were providing advanced nursing care and needed to be educated in graduate nursing programs. As APRN education, knowledge, and independence evolved, nursing redefined its scope of practice in state statutes or regulations to protect APRNs from charges of practicing medicine without a license. In 1992, then Yale University law professor Barbara Safriet wrote a landmark analysis of the
challenges that APRNs confronted as a result of medical practice acts written so broadly that they encompassed all health care and provided physicians with authority over all other health care providers. APRNs and other health care professionals have waged an ongoing battle to change legal definitions of their scopes of practice to reflect their education and actual practice, and to stave off efforts by medical societies to control their practice. Nonetheless, APRNs have been able to make headway at the state and federal levels.

The first legal authority for NPs to practice was created in 1972 in Idaho. Over time, a patchwork of state laws governing NP practice evolved, such that NPs in one state practice independently but NPs in a bordering state can practice only under on-site physician supervision. There are two primary issues with how state practice acts define APRNs: (1) the extent to which a relationship with physicians is defined, and (2) whether the act includes prescriptive authority and the type of pharmaceutical agents that can be prescribed (for example, opioids and other controlled medications). As can be seen in Figures 5 and 6, the western rural states are among those with the most permissive state laws. Nurse practitioners in Washington, Oregon, Wyoming, Montana, Idaho, Utah, Arizona, and New Mexico, for example, can practice without any legal mandate for physician supervision, direction, or collaboration and can prescribe any medication without such mandates.

Authorization for independent practice does not mean that APRNs don’t collaborate with physicians and other health care providers. To the contrary, nursing and APRNs embrace an interdisciplinary team approach to care; but particularly in rural areas, the APRN may be the sole provider.

The American Medical Association and other medical societies have repeatedly launched campaigns to stop advances in APRNs’ authority to practice and to roll back laws and regulations that removed physician supervision requirements. One strategy for ensuring physician authority over APRNs has been to include it in federal Medicare and Medicaid law and regulations. For example, Medicare requires physician supervision of nurse practitioners and nurse anesthetists in Critical Access Hospitals and for hospitals that seek Medicare’s Centers of Excellence designation.

Nurse anesthetists face additional oversight. At the close of its second term, the Clinton Administration, with the support of the American Hospital Association and the National Rural Health Association, dropped a federal requirement for physician supervision (not necessarily anesthesiologists) of certified registered nurse anesthetists in hospitals that receive Medicare funding. Less than one year later, the Bush Administration reversed this ruling despite the fact that the majority of states don’t require physician supervision of these nurse anesthetists. Because certified registered nurse anesthetists are the only anesthesia provider in many rural areas and underserved urban communities, the new ruling included a provision for states to apply for a waiver, providing the governor first consults with the boards of medicine and nursing. If a state permits independent practice by a certified registered nurse anesthetist and it has not opted for a waiver of the Medicare requirement for physician supervision, the federal policy overrules the state policy and the nurse anesthetist must be supervised.

The local variation in scopes of practice for APRNs, whether from state practice acts or federal regulations, reflects differences in the demand for health care providers and in the relative political power of nursing and medicine, rather than evidence-based policy. The Consensus Model for APRN Regulation: Licensure, Accreditation, Certification and
Education developed by the nursing community in recognition of the need to standardize state and federal rules and regulations regarding the legal authority to practice can serve to explain to policymakers the specifics of the changes needed to improve access to these important providers of health care.226

What’s the harm of requiring physician supervision of APRNs? Nursing organizations argue that unnecessary supervision is costly (requiring two providers to see a patient) and

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**FIGURE 5.** Summary of APRN Legislation: Legal Authority for Scope of Practice

[Diagram showing state-by-state summary of APRN legislation.]

* States with NP** title protection; the board of nursing has sole authority in scope of practice, with no statutory or regulatory requirements for physician collaboration, direction, or supervision: AK, AR, AZ, CO, DC, HI, IA, ID II**, KY, MI, MT, ND, NH, NJ, NM, OK, OR, RI, UT, WA, WV, WY

* States with NP’ title protection; the board of nursing has sole authority in scope of practice, but scope of practice has a requirement for physician collaboration: AL, CA, CT, DE, GA, IN, KS, LA, MA, MD, MN, MO, NE†, NV, NY, OH, PA, TX, VT, WI

* States with NP’ title protection; the board of nursing has sole authority in scope of practice, but scope of practice has a requirement for physician supervision: FL, SC, TN

* States with NP’ title protection, but the scope of practice is authorized by the board of nursing and the board of medicine: MS, NC, SD, VA

[Washington, D.C., is included as a state in this table.]

* This table provides a state-by-state summary of the degree of independence for all aspects of NP scope of practice, including diagnosing and treating (except prescribing). See Summary of APN Legislation: Prescriptive Authority for a state-by-state analysis of NP prescriptive authority.

** This information may apply to other APNs (clinical nurse specialists, certified nurse midwives, and certified registered nurse anesthetists).

† State with APRN Board.

• NPs may practice independently without physician involvement after 24 months of practice.

†† No physician collaboration required for APNs working in a hospital or ASTC

harmful to patients if important services are delayed or unavailable. In underserved rural areas, such supervision can impede APRNs from opening their own practices to provide access to primary care.

**Exclusive and Inclusive Language.** There are multiple governmental restrictions on what APRNs can do despite statutory authority in state practice acts. For example:

- Medicare prohibits APRNs from certifying home health services for patients and hospice care.
Medicare does not include APRNs as providers who can order respiratory therapy.

Under Medicare’s hospital “conditions of participation,” practice privileges are granted to physicians by the medical staff; APRNs are not defined in the regulations as eligible for privileges.

Medicare requires skilled nursing facilities to complete a comprehensive physical examination on all new admissions but will not pay for the stay unless a physician does the examination.

Clinical nurse specialists are not included as authorized providers of services in federally funded rural health clinics.

Under U.S. Code Title 5, nurse practitioners and nurse-midwives are prohibited from doing physicals for workers’ compensation cases and signing off on claims.

Medicaid allows states to decide whether to recognize nurse practitioners and nurse-midwives as primary care providers. Medicaid managed care plans are not required to include these APRNs.

When Massachusetts expanded health coverage to all residents, it quickly realized that it didn’t have the capacity to meet the new demand for primary care. To remedy the situation, Massachusetts passed a law in 2008 that named nurse practitioners as primary care providers. The 2008 law did not change nurse practitioners’ legal scope of practice. In fact, organized nursing deliberately chose not to seek amendment of the state’s nurse practice act in order to reduce physicians’ fears that nurse practitioners were seeking greater independence.227

Payment. Although payment for APRN services has improved, APRNs are not consistently paid at the full physician rate for the same service. Federal Medicaid law requires states to pay only family and pediatric nurse practitioners—not all nurse practitioners—under the fee-for-service arrangement; but some states have decided to reimburse all nurse practitioners. Medicare pays nurse practitioners and clinical nurse specialists 85% of what a physician is paid for the same service if it is provided independent of physician oversight; if the APRN service is billed under the “incident-to” billing provision of Medicare, the physician must directly supervise the care, the bill is under the physician’s Medicare number, and the payment is at the full physician rate.

Certified nurse-midwives had been paid 65% of physician payments under Medicare Part B. This was increased to 100% under the Affordable Care Act of 2010. State Medicaid payments for midwifery care vary but are likely to increase along with the new Medicare payment rate. However, Medicare does not include payment for resident training if a certified nurse midwife or other APRN supervises that training, leaving academic medical centers reluctant to hire nurse-midwives.

Certified registered nurse anesthetists are not included in the list of providers who can be paid for evaluation and management services under Medicare.228 In addition, Medicare doesn’t recognize nurse anesthetists’ on-call costs that are covered for anesthesiologists under Medicare’s provisions for Critical Access Hospitals and other rural health programs. The American Association of Nurse Anesthetists has argued that any provider who is
qualified to provide specific Medicare services should be reimbursed for them and at an equal rate.

“Equal pay for same service” continues to be a goal for APRNs. But simply being paid at all by private insurers can be a challenge. A 2006 study of 112 managed care organizations in 49 states and the District of Columbia found that only 33% credentialed nurse practitioners as primary care providers and of those that did so, only 52% paid the NPs the same rate as primary care physicians.229

Removing Barriers
In 2010, the Josiah Macy Jr. Foundation issued a report on primary care that was the result of an interprofessional group cochaired by Linda Cronenwett, former dean of the University of North Carolina School of Nursing, and Victor Dzau, a physician and Duke University’s Chancellor for Health Affairs. Titled Who Will Provide Primary Care and How Will They Be Trained?, the report recommended that:

- state and national legal, regulatory, and reimbursement policies should be changed to remove barriers that make it difficult for nurse practitioners and physician assistants to serve as primary care providers and leaders of patient-centered medical homes or other models of primary care delivery. All primary care providers should be held accountable for the quality and efficiency of care as measured by patient outcomes.230

This recommendation is notable given that 33 of the group of 49 national health care leaders were physicians.

In 2010, AARP made the removal of barriers to full utilization of nurses and all primary care providers, as well as unlicensed personnel, one of its legislative priorities, providing a powerful consumer voice to the policy debates.231

Additional options for removing the barriers include:

- A federal directive, modeled on the approach taken with military and VA facilities and the Indian Health Service, overriding state restrictions on the scope of practice of APRNs practicing in federally qualified health centers and facilities participating in Medicare or Medicaid.
- A national scope of practice law that governs the practice of nurses, including APRNs.
- Providing states with monetary incentives under Medicaid to remove barriers to APRN scope of practice and payment.

Quality and Costs in Acute Care
Nurses are sometimes described as being the last barrier between an error and the patient. But nurses can also cause errors, particularly in systems of care that have failed to adopt and integrate the kinds of redundant safeguards that are expected in banks and airlines. Simply put, nurses are key to quality and safety in care.232 Fortunately, a great deal is known about the relationship between nursing and patient safety and costs. In 2008, the Agency for Healthcare Research and Quality released a two-volume compilation of the evidence base and strategies for safe, quality nursing care.233
Nurse Staffing and Clinical Outcomes

The nursing shortage of the 1980s dissipated in the 1990s as the penetration of managed care into major markets led to layoffs of nurses and their replacement with unlicensed personnel with comparatively little training. Nurses knew intuitively that patients were being harmed and launched public relations campaigns around “Every Patient Deserves an RN.” The publicity about nurses’ concerns for patient safety attracted the attention of Congress, resulting in the Institute of Medicine conducting a study of nurse staffing in hospitals and nursing homes. Its report, *Nursing Staff in Hospitals and Nursing Homes: Is It Adequate?*, concluded that there was sufficient evidence on the impact of nurse staffing on nursing home outcomes to recommend improved staffing in long-term care facilities. Noting that the evidence linking nurse staffing with patient outcomes in hospitals was largely anecdotal, the report also called for research that would fill the gap.

Among the first studies to respond to this challenge, two were particularly significant and garnered considerable attention. The first, by UCLA professor Jack Needleman and his colleagues, was published in the *New England Journal of Medicine* in 2002 and examined nursing care hours per patient day, differentiating between registered nurses, licensed practical nurses, and nurses’ aides. The authors reported that a higher number of overall nursing care hours and a higher proportion of nursing care hours provided by RNs resulted in shorter lengths of stay, lower rates of gastrointestinal bleeding and urinary tract infections. The higher proportion of RN hours regardless of overall nursing care hours was associated with lower rates of cardiac arrest, shock, sepsis, pneumonia, and deep vein thrombosis. These associations were not present for licensed practical nurses or nurses’ aides.

Shortly afterwards, Linda Aiken, professor at the University of Pennsylvania School of Nursing, and her colleagues published a study in the *Journal of the American Medical Association* on the link between hospital nurse staffing and patient deaths, complications, nurse burnout, and job dissatisfaction. The study found that the addition of one patient to the average nurse’s caseload increased the risk of a patient dying within 30 days of admission by 7% and increased the odds of nurse burnout by 23% and job dissatisfaction by 15%.

Study after study has linked nursing care and adequate nurse staffing to improved clinical outcomes. Of 21 studies published between 2002 and 2006 included in a literature review, only three failed to find a significant relationship between nurse staffing and patient outcomes. In 2007, the federal Agency for Healthcare Quality and Research released a review of 94 studies of nurse staffing between 1990 and 2006, and a meta-analysis of the association between staffing and clinical and financial outcomes. The review confirmed that nurse staffing affects patient mortality and “nurse sensitive” outcomes. An increase of one RN full-time equivalent in ICUs and surgical and medical units was associated with lower rates of patient mortality, hospital-acquired pneumonia, cardiac arrest, failure to rescue, unplanned extubations, and respiratory failure; and it shortened length of stay by 24% in ICUs and 31% in surgical patients. Although an increase in RN hours was associated with a reduced mortality rate, an increase in LPN hours actually increased the mortality rate.

Patient satisfaction with care has become an important indicator of quality. Harvard School of Public Health professor Ashish Jha and his colleagues found that the ratio of nurses to patient days predicted patient ratings of the adequacy of pain management,
communications about medications, and discharge, as well as the extent to which they would recommend the hospital to others, although they could not determine whether the relationship was causal.240

**Nurse Staffing and Financial Outcomes**

Hospital administrators, however, questioning the impact of improved nurse staffing on financial outcomes, claimed that they could not afford to hire more RNs. This is not an easy issue to address. Charges for nursing care in hospitals are not separately accounted for by billing but rather are included in the bundled cost of care for a specific diagnosis. In addition, *charges* for care may not be an accurate reflection of actual *costs*241 and not all of the services that RNs provide can be captured in monetary terms.242 What is the value of emotional support of a dying patient or their family?

Researchers have developed models and analytic techniques to measure nursing costs related to the care of patients,243 including for specific conditions such as heart failure244 or for specific treatments such as pain management.245 But the challenge of studying the financial outcomes of nurse staffing may have resulted in relatively few researchers including this variable in their studies. A review of 117 studies on nurse staffing between 1983 and 2007 found that only 18 addressed financial outcomes.246

Nevertheless, the evidence in these 18 studies suggests that better nurse staffing may save money, depending upon how “better nurse staffing” is defined. For example, a study by Michael McCue, professor of health administration at Virginia Commonwealth University, and his colleagues found that a 1% increase in RN FTEs was associated with a 0.25% increase in operating costs but *without* a decrease in profits; whereas a 1% increase in non-RN FTEs increased operating costs only 0.18% but *reduced* profits by 0.21%.247

Using a different approach, Needleman and his colleagues examined the costs associated with three different models of improving nurse staffing: increasing the overall nursing care hours, increasing the proportion of nursing care hours provided by RNs, or doing both. They found that all three reduced length of stay, adverse events, and deaths. But increasing the proportion of nursing care hours provided by RNs actually lowered costs.248

Michael Rothberg, a physician and professor at Tufts University, and his colleagues compared the cost-effectiveness of various nurse staffing ratios (ranging from 4:1 patients per RN to 8:1) with other “safety interventions” for averting death. Although an HIV blood test was the most cost-effective intervention, 5:1 and 4:1 patient-to-nurse ratios were more cost-effective than thrombolytics for treatment of myocardial infarctions and Pap testing, leading the researchers to conclude that “[c]onsidered as a patient safety intervention, improved nurse staffing has a cost-effectiveness that falls comfortably within the range of other widely accepted interventions.”249

By itself, the reduction in length of stay that is associated with higher proportions of RN staffing can account for these findings.250,251 In addition, an increase in adverse events that is associated with reduced RN staffing hours can prolong length of stay and increase treatment costs.252 These costs are expected to increase with payment rules promulgated in 2008 by the Centers for Medicare & Medicaid (CMS) stating that the federal government will no longer pay for treatment of hospital-acquired, preventable occurrences, such as certain infections and pressure ulcers. Private insurers are following suit. Many of these occurrences can be prevented by good nursing care.
Defining what “adequate nurse staffing” looks like for specific settings is challenging. The educational level of the nursing staff has been shown to be a factor in this definition; hospitals with a high proportion of RNs with a baccalaureate or higher degree are associated with better outcomes. Aiken and her colleagues demonstrated that a 10% increase in the proportion of RNs with a baccalaureate or master’s degree reduced the risk of mortality and failure to rescue by 5% each.

In addition, the impact of improving nurse staffing depends upon an institution’s existing level and mix of staffing. Adding an RN to a unit that is well staffed may have a marginal impact on patient outcomes and end up having a negative effect on the unit’s financial margin. On the other hand, adding that RN to a poorly staffed unit can reduce deaths, length of stay, adverse outcomes, and nurse turnover—all of which can improve the unit’s financial picture.

**Improving and Using Data on Nursing and Quality**

Definitions and standardization of measures are crucial when studying nurse staffing and clinical outcomes; they are controversial as well. Needleman and colleagues measured nurse staffing in hours of care per patient day, whereas Aiken and colleagues used mean caseload of patients for nurses providing hands-on care. Some studies measured nurse staffing at the unit level and others at the hospital level, making comparisons suspect.

At the same time, researchers have refined the variables thought to be sensitive to nursing care. For example, “failure to rescue” became an important measure of the adequacy of the surveillance capacity of nurses. Defined as the “number of deaths in patients who developed an adverse occurrence among the number of patients who developed an adverse occurrence,” the measure reflects whether staffing levels permit nurses to be in the presence of acutely ill patients for a long enough period of time to witness, evaluate, and respond to deteriorations in patients’ conditions.

The development of nurse-sensitive outcomes has been essential for ongoing research and public reporting on the quality and safety of nursing care. The ANA has developed a National Database of Nursing Quality Indicators. It contains unit-level data from over 1,700 hospitals nationwide. The indicators, which are endorsed by the National Quality Forum, include: patient falls with and without injury; pressure ulcers whether community-, hospital- or unit-acquired; nursing skill mix; nursing hours per patient day; RN job satisfaction; RN perceptions of their practice environments; RN education and certification; pediatric pain assessment; pediatric IV filtration rate; psychiatric patient assault rate; use of restraints; nurse turnover; and nosocomial infections, such as ventilator-assisted pneumonia, central line–associated bloodstream infection, and catheter-associated urinary tract infections.

The National Quality Forum has also been defining key indicators of quality in inpatient nursing care. In 2003, it released the “NQF 15,” a set of process and outcome measures that are affected or provided by nursing personnel, and it called for public reporting on these measures. In 2006, the Robert Wood Johnson Foundation launched the Nursing Quality Interdisciplinary Research Initiative to address the gaps in knowledge about nursing’s effect on quality and identify opportunities for further research on the topic.

The Lewin Group’s Timothy Dall and his colleagues argue that “the economic value of nursing is greater for payers than for individual healthcare facilities” because the impact of good hospital nursing care extends beyond the hospitalization. Patients who are
discharged with fewer complications, better prepared for self-care management, and with higher levels of functioning will have shorter recovery periods and less need for additional services.

**Long-Term Care**

An estimated 10.9 million people residing in the United States, half of them non-elderly, suffer from cognitive and mobility impairment and need help with activities of daily living. Most receive assistance from unpaid family caregivers, but 13% receive long-term care services in their homes or communities from paid providers, largely through Medicare and Medicaid. Another 1.8 million people receive long-term care services in nursing homes. Whether in the community or a nursing home, long-term care is more likely to be provided by paid workers as the person ages and functional impairment increases.

Long-term care is largely nursing care delivered by providers ranging from family caregivers and personal care assistants who help with activities of daily living to advanced practice registered nurses who manage disabling conditions through medications and other interventions. Reports of poor outcomes, including injuries and deaths, in long-term care facilities led to federal and state regulations to improve staffing and other factors related to quality of care. The 1987 federal Nursing Home Reform Law required facilities to “protect and promote the rights of each resident,” including the right to be protected from abuse and care that harms. The regulations set minimum nurse staffing standards that address skill mix and a minimum number of nursing care hours per resident. However, enforcement of these regulations has been sorely lacking. In 2008, the Inspector General of the Department of Health and Human Services reported that the percentage of nursing homes that had been cited for safety and health violations in 2007 ranged from 88.4% for non-profit homes to 93.5% for for-profit homes.

Long-term care facilities rely heavily on certified nursing assistants and licensed practical nurses, but RNs are also needed. In many cases, the care is not as technically complex as that in acute care, but it can make the difference between life and death, disability and independence. Adequate nursing staff in skilled nursing facilities is associated with lower rates of death, dehydration, pressure ulcers, urinary tract infections, and antibiotic use, as well as more discharges to home and higher levels of functioning. Although this finding does not just apply to RNs, the evidence is strongest for RN staffing.

Three Institute of Medicine reports have recommended improved nurse staffing in nursing homes. But payment for care in long-term care facilities is unlikely to be sufficient to dramatically improve RN staffing beyond the 45 minutes per resident per day already called for in federal regulations. This includes managerial and administrative time, however, and research has found dramatic improvements in outcomes when RNs spend 30–40 minutes in direct patient care (see Figure 7).

Charlene Harrington, a nurse and a professor emerita at the University of California, San Francisco, has argued that poor staffing in long-term care facilities is related to problems with payment; furthermore, the need to make a profit in investor-owned facilities can compromise staffing and quality of care. The investor-ownership model has been found to have worse nurse staffing and poorer outcomes than nonprofit or public facilities. The Affordable Care Act calls for transparency in nursing home ownership.
FIGURE 7. Outcomes Associated with Average RN Time per Resident per Day

Develop pressure ulcers
p < 0.001
9.4% (n = 17)
31.8% (n = 169)
58.1% (n = 118)
25.1% (n = 89)
Urinary tract infection
p = 0.009
20.7% (n = 64)
21.1% (n = 112)
20% (n = 71)
10% (n = 18)
Weight loss
p = 0.008
29% (n = 90)
26.6% (n = 141)
26.8% (n = 95)
15.6% (n = 28)
Deterioration in ability to perform activities of daily living
p < 0.001
32.3% (n = 100)
35% (n = 186)
39.4% (n = 140)
15% (n = 27)
Hospitalization
p < 0.001
11.1% (n = 59)
9.6% (n = 34)
6.1% (n = 11)
14.5% (n = 45)
Catheterization
p = 0.011
13.9% (n = 74)
15.2% (n = 54)
8.7% (n = 27)
8.3% (n = 44)
Nutritional supplements
p < 0.001
8.2% (n = 29)
21.7% (n = 39)

Key
- < 10 minutes RN direct care time
  n = 310 • 24 facilities
- 10–20 minutes RN direct care time
  n = 531 • 30 facilities
- 20–40 minutes RN direct care time
  n = 355 • 21 facilities
- 30–40 minutes RN direct care time
  n = 180 • 7 facilities

The aging of the U.S. population will increase the need for skilled care but the solution is not an all-RN nursing staff. Rather, there needs to be a mix that includes RNs, licensed practical nurses, and certified nursing assistants. In long-term care settings, RNs have been reluctant to expand the job responsibilities of unlicensed personnel, also referred to as direct-care workers; but if these personnel are adequately trained, have sufficient oversight and support, have reasonable caseloads, and are paid a decent wage with standard benefits and opportunities for promotion, excellence in long-term care is possible.\textsuperscript{273}

In 2005, an expert consensus panel funded by the John A. Hartford Foundation called for increasing the use of APRNs in nursing homes. APRNs have been instrumental in developing home- and community-based models of long-term care that have improved quality of life and functionality for older people and led to fewer complications, at a cost that is comparable to or less than that of institutionalization. The cost savings are partly attributable to reductions in emergency department usage and hospitalizations. This has particular significance for health care costs given that emergency department usage between 1993 and 2003 increased by 34\% for people aged 65 to 74 years and by 93\% for blacks in this age group.\textsuperscript{274}

Keeping older adults healthy with high levels of independent functioning and chronic care management is exemplified in these community-based models of long-term care developed by nurses:

\textit{LIFE}. The University of Pennsylvania School of Nursing founded Living Independently for Elders (LIFE), a program to keep older adults out of nursing homes by providing comprehensive care with the primary site being an adult day-care center; however, the nurse practitioners, who are the primary care providers, follow the patients across settings, including in the home or a nursing home. Using an interdisciplinary team approach, the program has improved rates of falls, pressure ulcers, depression, and other adverse outcomes; reduced use of psychotropic medications; reduced nursing home admissions, lengths of stay and ER visits; and produced sound financial outcomes. It qualifies for capitated payment under Medicare and Medicaid as a PACE program, or Programs of All-Inclusive Care for the Elderly.\textsuperscript{275,276}

\textit{Evercare}. This program of Ovations/UnitedHealthcare was developed in 1987 by two nurse practitioners to provide care coordination for older adults across settings. Now in 35 states and adapted in the United Kingdom, Evercare uses nurse practitioners as key providers on an interdisciplinary team that focuses on helping older adults and their families to better manage their care, intervening early when signs of deteriorating health emerge, maintaining functioning and independence, and reducing mortality rates and health care costs. Evercare saves over $100,000 per nurse practitioner annually.\textsuperscript{277,278}

\textit{Senior ASSIST}. Assisting Seniors to Stay Independent through Services and Teaching is a Nebraska program started in 1987 for frail elderly who do not qualify for home care under Medicare but need more care than a primary care or physician’s office can provide. Serving older adults who may have cognitive impairment and complex medical problems, the program has high patient and physician satisfaction, decreases hospital admissions and emergency room visits, and saves money.\textsuperscript{279}

All of these alternatives use APRNs within a multidisciplinary team that may be led by the nurse. The efficient use of APRNs in long-term care settings requires removing
barriers to full utilization and payment of APRNs, access to health information technology, integrating APRNs into accountable care organizations, and investing to scale-up the new models of long-term care.

**Community-Based Care**

The new models of community-based long-term care developed by nurses mark a shift away from the institutional models that have proved to be costly and mostly incompatible with a patient-centered, individualized philosophy of care. Just as society was seduced into thinking that high-tech care in institutions would cure all ills, so too was nursing. Acute care has dominated the nursing curriculum and few new graduates think of beginning their career anywhere except a hospital, if only for a year. Nonetheless, nursing has been the core of community-based care—from home health to public health to school health. The challenge is to prepare more nurses to shift from acute to community care and to push community-based health organizations to create the space for this shift.

Consider public health. Despite the rich history of public health nursing that began at the turn of the twentieth century with Lillian Wald, the role of public health nurses is threatened today. Escalating costs, unstable revenue streams, and funding silos for individual care can threaten the population-focused activities of public health departments. Many public health departments have ended or restricted programs that provided individual personal or illness care to the poor or uninsured, except when a problem threatens the whole community, as with infectious diseases that continue to be addressed through immunization programs. The Wald model of nurses being *in* the community to provide individual care that informs population-based interventions to promote health is at risk of being lost.

Interestingly, the clinical aspects of public health agencies that encompass screening, treatments, maternal-child health, prevention, and personal care services are more likely to be included in an agency if a nurse is the senior executive. If a nonnurse or nonclinician is the senior executive or if there is a relatively low percentage of nurses on staff, the regulatory role and environmental health functions of a public health agency are more likely to dominate.282

Kevin Grumbach, a primary care physician and health policy expert at the University of California, San Francisco, and his colleagues studied public health nurses in California and concluded that they were not adequately addressing population- and community-level needs. Nonetheless, caring for individuals in the community can provide important information for nursing the community as a whole as illustrated by the following examples:

**Neighborhood Nursing**

Visiting Nurse Services often assist with public health functions. In the 1990s, the Visiting Nurse Service of Central Jersey recognized that funding streams forced its nurses to function in programmatic silos rather than with a community focus. In the 1990s, it developed Neighborhood Nursing to foster a community focus to the work of its nurses who were already working in a community location. Nurses were assigned to be *the* nurse for a community and to work with the community to address its health-related priorities, whether fire safety, housing for the homeless, or educating community groups about HIV/AIDS prevention.
Nurse-Managed Health Centers
Over the past three decades, more than 250 nurse-managed health centers have emerged to serve vulnerable and underserved populations across the country, usually as initiatives of schools of nursing, with initial funding support from HRSA’s Division of Nursing. Most are interdisciplinary centers that combine primary care and aggregate-level assessments and interventions, with physicians serving as consultants or employees. Nurses manage and lead the centers, provide most of the primary care, and work with community boards to develop programs to promote the health of the community. An example is the Eleventh Street Family Health Service, affiliated with Drexel University and founded and directed by public health nurse Patricia Gerrity, which serves as the health home for over 6,000 residents of North Philadelphia. It combines interprofessional primary care with interventions such as a community garden tended by youth, cooking classes to teach culturally relevant approaches to better nutrition, and other services guided by a community advisory board. Nurse-managed health centers such as this one hold promise for expanding the nation’s infrastructure of community health centers.

The Nurse-Family Partnership
The Nurse Family Partnership is another model of public health that is spreading across the country and was showcased in a 2006 *New Yorker* story, “Swamp Nurse,” about the work of Luwana Marts, a nurse who works in the program in Louisiana.285 The aim of the program is to reduce the risk of at-risk, poor, first-time mothers and their infants. The program follows pregnant women and their newborns through the age of two.286 Nurses visit the women in their homes, assess their physical and psychosocial health status and resources, assess the newborns’ health, examine ways to improve mother–baby bonding and parenting skills, and counsel the women on self-care issues that aim to empower them to make better life and health decisions. Its focus is primarily on the care of individuals and families rather than the community as a whole; but public health departments such as New York City’s are viewing the program as a way to reduce the health risks associated with poverty.

The outcomes of the Nurse-Family Partnership programs include reduced second pregnancies, child abuse, and arrests; and increased likelihood of education and employment of the mother, the father being present in the home, and more time between pregnancies. The average return on every dollar spent on the program is estimated to be $5.70 for higher-risk mothers and $1.26 for lower-risk mothers.287

Whether non-RNs can provide the same quality of care as RNs is a subject of debate. Federal support to spread such home visitation programs doesn’t specify that nurses provide this care. But the Nurse-Family Partnership’s founders, David Olds and Harriet Kitzman, a nurse, have argued that the model relies upon nurses’ expertise and skill and have provided supporting evidence.288

School Health Nursing
Nurses are the mainstay of school health services. School nursing has existed for over a century but suffers from a lack of research documenting its impact and from inadequate and unstable funding that is characteristic of school health in general.289,290 When state and local budgets are restricted, school nurse positions are likely to be cut. Even during
financially stable times, school nurse positions may be insufficient for doing more than mandatory screening and first aid.

There are over 75,000 school nurses in the country; but over 37% of these work part-time, and 50% of public schools have no full-time registered nurse. The National Association of School Nurses recommends the following nurse-to-student ratios:

- 1:750 for students in the general population
- 1:225 in the student populations that may require daily professional school nursing services or interventions
- 1:125 in student populations with complex health care needs
- 1:1 may be necessary for individual students who require daily and continuous professional nursing services

Few school systems meet these ratios. Some schools are expecting teachers to provide the routine health care that is needed by children who may have chronic illnesses or be disabled—a population that has grown since the federal and state governments removed barriers to disabled children attending public schools. This care can be complex and time-consuming, and school nurses are essential for managing and preventing the growing prevalence of asthma, diabetes, obesity, and other conditions among school-aged children.

APRNs may be school nurses but sometimes are not able to practice to the full scope of their practice because the school district does not want the additional liability that accompanies diagnosing illnesses and prescribing first-level treatment before referring. If APRNs were able to practice to the full scope of the law, they could provide underserved families with access to health care, bill for their services, and generate revenues to cover the cost of care.

Experimentation with different models of school health services is needed. In recognition that the school may provide the only point of access to health care for some children and their families, the National Nursing Center Consortium has proposed expanding nurse-managed health centers to schools. School-based health centers already exist in some communities and provide an infrastructure for expanding access to primary care. Telehealth may enable some school systems to improve services despite understaffing of nurses or physicians.

**Gender and Power**

In 1983, Claire Fagin and Donna Diers, then deans of the schools of nursing at the University of Pennsylvania and Yale University, respectively, wrote a commentary in the *New England Journal of Medicine* about the visibly discomforting and disturbing reactions that some people had at cocktail parties when someone was introduced as a nurse. Such a pronouncement is a conversation stopper, they argued, probably because nursing is a metaphor for notions such as motherhood (nurturing and caring—not an appropriate topic for business or professional discussions in mixed company), class struggles (most nurses work in hierarchical settings where the top dogs are physicians or administrators), unseemly intimacy (“Nurses do for others publicly what healthy persons do for themselves privately”), equality (treating all patients the same regardless of their station in life rather
than embracing a hierarchy of power and position), and conscience (reminding physicians of their fallibility). Despite the discomfort that these metaphors can create in some venues, Fagin and Diers suggested that the metaphors may represent the very reasons why some people are drawn to the profession. And yet, although few physicians would fail to clearly identify themselves as such, contemporary nurses may hide their identity because of the reactions they encounter.

These reactions are socially constructed and framed by nursing traditionally and currently being a predominantly female profession. As noted earlier, society has expected women and nurses to do nursing work but refused to value it sufficiently, as reflected in low status, poor pay, and subservient views of the role. Columbia University professor Sheila Rothman has pointed out that as long as women worked in places with meager wages and few resources, no one cared. Once they started to receive better pay, authority, and power in their positions, the work became more attractive to men. In the early 1900s, nurses held sufficient power to advocate safe care in hospitals and forge new initiatives in the community and home setting, where they functioned independently. It was not uncommon for a nurse to direct a hospital, as Sophia Palmer did at the Rochester General Hospital before becoming editor-in-chief of the *American Journal of Nursing* in 1900. As hospitals proliferated with funding from the Hill Burton Act in 1946, they became complex organizations with extensive resources at their command and nurse leaders were often replaced with men who were physicians and, later, business executives.

Rothman provides another example of this shift in power and control. In the early 1900s, nurses were providing care to the poor on the Lower East Side of Manhattan when no health services were available to the community. Few physicians cared, as the nurses were paid meager wages mostly through donations from private philanthropists. In 1921, Congress passed the Sheppard-Towner Act to reduce maternal and infant mortality. It provided support for prenatal and child health clinics that used nurses to deliver care that emphasized hygiene, nutrition, and health education. As the success of this reform movement took hold, physicians expanded their private practices to include these services for individuals and Sheppard-Towner was ended. Rothman concludes: “The defeat of Sheppard-Towner marked the end of female expertise in the field of health care and, at the same time, shifted the provision of preventive health services from the public to the private sector.”

Today, this shift in power and control continues. For example, nurses have been involved in integrative or holistic health care since the days of Nightingale and more so since the 1970s when Martha Rogers, director of the nursing program at New York University, developed a theory of nursing that was based upon quantum physics and provided a framework for modalities such as therapeutic touch, imagery, and movement therapy. In the 1990s, some insurers began to pay for alternative or integrative health services. Today, integrative health services are headed by physicians and many have no nurses on staff.

Nurses were highly respected in their communities until the women’s movement of the 1960s when feminists viewed nursing (and other female-dominated professions) as something that smart, savvy women didn’t do. Nurses took on a mantle of a powerless and oppressed group, despite their being more educated than ever before, taking on more complex roles, and becoming scientists. In fact, nursing became committed to ensuring that it met the criteria for being deemed a “profession” by prevailing standards. At the same time, the women’s movement emboldened many nurses to challenge society’s diminished
view of their work. They persisted in power struggles within and outside of the profession to advocate better education of nurses, control of their practice without undue restrictions and barriers, and challenging others to value nursing and its importance in the health care system—struggles that continue today.

The classic example of how this power struggle has been played out is in the nurse-physician relationship—a longstanding point of contention that persists. In 1967, physician Leonard Stein wrote about the “Doctor-Nurse Game” in the *Archives of General Psychiatry*—a bold physician pointing out to his colleagues that the communication games nurses had to play to assuage the position and egos of some physicians didn’t serve either profession or patients well.\(^{306}\) Nurses who knew what was wrong with a patient or what medication needed to be ordered could not forthrightly share their recommendations without being viewed as insubordinate or offensive. Instead, they would make “suggestions” or pose a question to the physician. It was deemed inappropriate for a nurse to assume that she had more knowledge or wisdom than a physician. The deference of nurses to physicians also took the form of nurses standing up for physicians who arrived on the unit and even giving them their seats.

Thirty-five years later, physician Alan Rosenstein and VHA colleague Michelle O’Daniel reported on what had become a consequence of nurses’ evolving unwillingness to continue to play this game: the abusive behavior by physicians was perceived by both groups as being a threat to the safety of patients and affecting the retention of nurses.\(^{307,308}\) The issue was serious enough for The Joint Commission (the accrediting body for hospitals and other health care facilities) to issue a directive requiring facilities to establish “zero tolerance” policies and procedures on abusive behavior among employees and anyone authorized to practice under the facilities’ auspices.\(^{309}\)

Class issues also come into play in shaping society’s views of nurses, since nurses rarely come from upper-class families. Nurses historically have engaged in intimate work that breaks down class boundaries at the bedside—nurses care for people of all socio-economic classes and hold an ethic that rejects class-bound differences in the care they provide. Regardless of the patient’s social class, gender, race, ethnicity, or religious preference, the nurse controls the encounter. Once nurses leave the bedside, however, this ethic of classlessness and control no longer operates in the same way. Whether in relation to physicians, hospital administrators, policymakers or others in positions of power, relatively few nurses have been able to muster the authority to break through class boundaries and become full participants in the negotiations that determine the fate of their profession.

In 1973, Jane Ashley, a professor at Boston College’s Connell School of Nursing, wrote about the continuing power struggles that nurses encountered in trying to break out of stereotypical views: “Although many nurses hold positions of potential leadership and power and engage in constant decision making, few are recognized as appropriate participants in policy decisions.”\(^{310}\) Unfortunately, this view continues to resonate with contemporary nursing, forcing nurses to grapple with the gendered, historical context of the profession. Today, this context frames many issues, including:

- Nursing remains a predominantly female profession with nursing school enrollments being 90% women; women now constitute half of the enrollees in medical schools in the nation.\(^{311}\)
- There continue to be calls for more evidence of nurses’ worth, despite overwhelming evidence in support of their impact on the outcomes of care.
Nurses’ relative invisibility in society has extended to the media. In 1997, the Woodhull Study on Nursing and the Media, commissioned by Sigma Theta Tau International Nursing Honorary Society to examine nursing’s representation by news media, found that nurses were included in relevant news stories only 4% of the time. Captions for photos that included nurses often failed to name the nurse. Worse, health care trade publications such as Modern Healthcare used nurses as sources only 1% of the time. Since this report, journalists have increasingly turned to nurses as expert sources, and news media are somewhat more willing to report on studies published in the American Journal of Nursing and other nursing journals.

Nurses are underrepresented on governing boards of health-related organizations, including hospitals. Lawrence Prybil, professor emeritus at the University of Iowa College of Public Health, and his colleagues studied 123 nonprofit, community hospital systems and found that only 2.3% of hospital board members were nurses; 22.6% were physicians. Only 0.8% of chief nursing officers were voting members of the board, compared with 5.1% of vice presidents for medical affairs and 42.7% of chiefs of staff.

Nurses continue to struggle to be included at key policymaking and advisory bodies. During the first decade of this century, not a single nurse served on the New York City HIV/AIDS Commission despite the call for such an appointment from the nursing community and the availability of nurses who were experts on HIV/AIDS.

These are not simply matters of parity. During a time when the nation is focused on how to make health care more accessible, safe, cost-effective, and relevant to people’s needs, society loses when it fails to tap into the expertise of its largest health profession.

Why haven’t nurses made more progress in creating social conditions that enable their expertise to be tapped? Although gender- and class-bound views of nursing may account for society’s biases about nurses’ place in decision making about health care, nurses have to own their fate. A 2010 Gallup survey of the perceptions of health care opinion leaders regarding nursing’s leadership in health care reform noted that too many nurses don’t want to assume the mantle of leaders in health care and that nursing seldom presents a single unified voice on policy matters. With over 120 national nursing organizations, unity is no easy feat. Most nursing curricula now include content on health policy and politics, helping to raise nurses’ expectations for full participation in health care decision-making.

But nursing’s views of and effectiveness in political action and shaping health policy have waxed and waned over the years. Sally Cohen, a professor in the University of New Mexico College of Nursing and senior fellow at the University’s Robert Wood Johnson Center for Health Policy, and her colleagues described various stages of nursing’s political development that ranged from becoming aware of the importance of politics and power for the profession’s self-interests to leading on addressing the broader health and social issues of the day. The authors noted that the profession’s movement through these stages has been uneven, probably owing to an internalization of its historical, second-class role in health care.

Cohen and her colleagues and others outside the nursing profession, such as the 1995 Pew Health Professions Commission, have argued that the profession needs to do a better job of preparing nurses to lead. Efforts are under way to do so. For over 25 years, the Wharton Business School has offered a program to give senior nursing executives the
Administrative and leadership knowledge to become more effective leaders. In 1997, the Robert Wood Johnson Foundation created the Nurse Executive Fellows program to train mid-career leaders. The American Academy of Nursing has created several fellowships for nurse leaders, including one at the Institute of Medicine and another at AARP. Nurse Leaders in the Boardroom, supported by the Robert Wood Johnson Foundation in partnership with AARP’s Center for Championing Nursing in America, assists nurses in acquiring appointments to nonprofit boards and other influential advisory positions at the state level.

Real gains in tapping nurses’ expertise will arise from partnerships between nursing and the public. The AARP Center for Championing Nursing in America has created an innovative partnership between nurses and consumers that promises to support this quest for advancing nursing’s interests and leadership role in health care. In early 2010, AARP’s Public Policy Institute announced that the organization had included in its policy agenda removing barriers to APRNs’ practice. In 1987, Susan Reverby concluded her classic study of caring, womanhood, and nursing with these thoughts:

> If nursing can achieve the power to practice altruism with autonomy, all of us have much to gain. Nursing has always been a much conflicted metaphor in our culture, reflecting all the ambivalences we give to the meaning of womanhood. Perhaps in the future it can give this metaphor and, ultimately, caring, new value in all our lives.  

This will only happen through the vision and concerted action of nurses and others concerned with access to high-quality, affordable health care.

**OPPORTUNITIES: A VISION FOR THE FUTURE**

The underlying premise of this chapter is that nurses and their work are essential for the health of the nation. This should be intuitive, but the profession has had to prove it over and over again. An overwhelming body of evidence demonstrates the benefits of adequate nurse staffing and APRN care. Moreover, the innovative models of care that nurses have developed speak to their understanding of the health needs of people and their vision for meeting those needs.

**Innovative Models of Care**

In 2006, the American Academy of Nursing initiated the Raise the Voice Campaign, funded in part by the Robert Wood Johnson Foundation, to identify and make visible innovative models of care developed by nurses for which there are positive clinical and financial outcome data. Those nurse-innovators who developed the models are called Edge Runners. As of 2010, there were close to 50 Edge Runners. Whether designated as Edge Runners or not, nurses have been in the forefront of developing innovative models of care. Some of these models have been discussed already, including Senior ASSIST, Evercare, and LIFE. Others include:

**Childbirthing Centers**

Freestanding childbirthing centers were developed by certified nurse midwives to provide a “normal” delivery experience, enabling women and families to labor and birth in
a home-like setting without fetal monitoring, epidurals, and unnecessary episiotomies. Only low-risk women are eligible, and the centers have hospital backup for those women and babies at high risk. Women are educated and empowered to be in charge of their birthing experiences, to attend to their own health through nutrition and exercise, to breastfeed, and to prepare for the new addition to the family.

Today, there are over 195 childbirthing centers in the country. Two Cochrane Collaboration reviews have concluded that midwifery care, including childbirthing centers, improves outcomes for mother and infants, including higher rates of breastfeeding, reduced hospitalization rates, and reduced infant mortality. Childbirthing centers have been endorsed by the American College of Obstetricians and Gynecologists. The National Association of Childbirthing Centers reviews and accredits childbirthing centers, thus attesting to their quality. Childbirthing centers could be the frontline maternity service for women if payment were at a sustainable level.

**Transitional Care**

When patients are about to be discharged from a hospital, they and their family caregivers may feel frightened and unprepared to manage symptoms that may worsen. Although hospitals give lip service to discharge planning, the reality is that payment for preparing patients and family caregivers for the transition to home is minimal or nonexistent, offering little incentive to spend time on it. This can lead to patients returning to the hospital. Twenty percent of all Medicare discharges from hospitals result in readmission within 30 days; 67% of patients with medical conditions and 51% of those who had surgery were readmitted or died within a year of the hospitalization. The cost of these rehospitalizations was estimated at $17.4 billion in 2004.

Over 20 years ago, Mary Naylor, a nurse, researcher, and professor at the University of Pennsylvania, and her colleagues at the school of nursing began to test what is now known as the Transitional Care Model that uses nurse practitioners to ease the transition from hospital to home. Initially, the model targeted low-birthweight infants’ transition to home. Subsequently, Naylor adapted the model for older adults with multiple chronic illnesses. The nurse practitioner clarifies the patient’s and family member’s health needs, priorities, and goals during the hospitalization, evaluates and reconciles medications, coordinates multiple specialty services, and prepares the patient and family caregiver for managing care at home. Once the patient is discharged, the nurse practitioner makes a home visit within 48 hours—a crucial period when patients and family caregivers become concerned about symptoms that may worsen from the stress of the discharge day. The nurse practitioner continues to visit the patient and family, guiding them in managing both the remnants of the acute illness and the daily challenges of living with a chronic illness. The duration of the service varies with the needs of the patient and family caregiver, but usually last no more than 90 days.

Naylor and colleagues have documented that the Transitional Care Model improves the quality of life and physical functioning, increases the time from discharge to first readmission or death, and decreases readmission rates. Looking at all costs during a year except out-of-pocket patient expenses and medications, a conservative cost analysis showed a savings of $5,000 per Medicare beneficiary.

Aetna and Kaiser Permanente have been testing variations on the services and providers (for example, baccalaureate-prepared RN versus APRN). AARP recognized that
transitional care is valuable for its members and worked to ensure that the Affordable Care Act of 2010 included support for demonstration projects on transitional care.

**Nurse-Managed Centers**

The nation has 1,067 community health centers that operate 6,700 clinics for medical, dental, and mental health care to about 16 million low-income and uninsured people. President Obama sees their expansion as key to providing access to primary care for the growing number of people who will be insured after the Affordable Care Act. That act authorizes funding to expand and evaluate nurse-managed centers, which could be a model for increasing access to primary care; however, the funding still has to be appropriated by Congress.

For over two decades, HRSA has offered grants to schools of nursing to establish nurse-managed clinics for underserved populations. These could also serve as clinical teaching sites. Today, there are over 250 nurse-managed clinics across the nation providing interdisciplinary health services to individuals, families, and communities.

Nurse-managed centers vary in their level of sophistication and success. Some have struggled to get paid by Medicaid managed care plans and private insurers that may not credential APRNs. Some have closed while others have gone on to become federally qualified health centers, providing them with enhanced payments. Some of the best centers don’t have this status but could if the following changes were made:

1. **Removing the requirement that federal qualified health centers be governed by a 51% consumer-majority board.** Most centers fall under the governance structure of a university, which is not dominated by community members. This criterion could be modified for university-affiliated health centers. Another alternative would be for the federal government to develop regulations that treat nurse-managed centers as the safety net provider that most are, paying them more but without the same governance requirement.

2. **Payment for APRN services, credentialing by insurers, and being designated as qualified to lead a health or medical home.** Eleven nurse-managed centers in Pennsylvania applied for medical home designation by the National Commission on Quality Assurance in 2009. The designation was denied because they met all of the criteria except one: the centers were not physician-led—despite their having physicians as consultants or employees. In 2010, The Joint Commission announced that it would be competing with NCQA to grant medical home designation and its criteria did not include that the home be physician-led. Subsequently, NCQA granted the medical home designation belatedly to the nurse-managed centers that had applied in 2009.

3. **Providing the center with financial support for infrastructure development, including health information technology.**

**Convenient Care Clinics**

Retail, or convenient care, clinics have emerged as a way to increase people’s access to services that focus on the diagnosis and treatment of common conditions, such as upper respiratory infections and influenza, without appointments and at convenient hours for working families. Staffed primarily by nurse practitioners, there are now approximately 1,200 retail clinics serving over 3.5 million people.
Retail clinics came under attack by physicians who claimed that they provided inferior care, interfered with patients’ relationships with primary care providers, missed opportunities for preventive care such as immunizations, and didn’t save money since they probably resulted in more prescriptions being written to be filled at the retail stores’ pharmacies. Ateev Mehrotra, a physician and policy analyst at RAND, and his colleagues have refuted these charges in papers published in *Health Affairs* and the *Annals of Internal Medicine.* Despite this, there continue to be efforts to restrict the practice of retail clinics.

**Promoting Health and Wellness**

A number of nursing innovations focus on prevention and wellness:

- **The Chicago Parent Program.** This program was developed by Deborah Gross, a professor of nursing at Johns Hopkins University, and an interdisciplinary team in collaboration with African American and Latino parents with funding from the National Institute of Nursing Research. It provides a culturally specific 12-week training course on parenting for low-income, ethnic minority parents delivered in day-care centers. It uses videotaped vignettes to illustrate children’s behavioral problems and ways that parents can address them, along with group discussions of the principles and applications of the approaches. A parent group advised on the design of the training, scenarios for videotaping, and other aspects of the program. A study that compared baseline and one-year outcomes of the program with a control group found that the program benefited both parents and their children. At an estimated cost of under $300 per child, it has produced more than a 900% return on that investment. Although the program needs longer follow-up, its outcomes to date speak to the potential for interdisciplinary teams to help people to improve their parenting skills and give children a better start. The model has been adopted by the Mayo Clinic and Chicago Head Start.

- **Health InterConnexions.** This program uses nurses as coaches to help employees change their health behaviors and monitor their health outcomes. Targeting the 60–80% of employees who are considered to have unhealthy lifestyles, the program engages employees in assessing and monitoring their health risk using online tools and objective measures of their health status (such as weight and body mass index), identifies actual or potential health problems, sets health goals with employees, and provides in-person coaching sessions to help them change their health habits. The program has reduced employer and employee health care costs, reduced employees’ health risk, and reduced sick leave.

- **Sister-to-Sister HIV Risk Reduction.** Based upon multiple NIH-funded studies, Loretta Sweet Jemmott and John Jemmott from the University of Pennsylvania School of Nursing and Annenberg School for Communication, respectively, have developed a 20-minute intervention provided by nurses and other health care providers to help women visiting health centers develop the knowledge and skills to reduce their HIV risk. Sister-to-Sister emphasizes negotiated condom use and knowledge about HIV transmission and prevention using videos, exercises, and discussion and uses African American nurses to provide the intervention at primary care clinics.
The program’s outcomes include increased condom use, reduced incidence of unprotected sex and of sexually transmitted diseases.\textsuperscript{332} It was selected by the Centers for Disease Control and Prevention as a “best-evidence” HIV prevention intervention.

These and other nurse-led innovations hold promise for the nation’s mandate to reduce the burden of illness in financial and humans terms. But they are challenged to fulfill this promise for several reasons.

First, they often lack the kind of visibility that will bring the work to the attention of policymakers. Second, regulations developed to protect the public against unsafe care present barriers to nurses (and others) who try to innovate with new models of care delivery. Third, financial support is needed to scale-up many of these innovations. Fourth, the American Academy of Nursing’s Raise the Voice Campaign discovered that some nurse-led innovations lacked the clinical and financial outcome data necessary for spreading beyond a single site. An investment is needed in developing nurses’ knowledge and skill in defining and selecting key outcome measures, designing data-collection and analysis systems and procedures, and conducting controlled clinical trials.

**Ensuring that the Nation Fully Utilizes Its Nursing Workforce**

In 1991, over 60 national nursing organizations signed onto *Nursing’s Agenda for Health Care Reform*, a statement of nursing’s beliefs about what the U.S. health care system should look like.\textsuperscript{333} The agenda included an emphasis on community-based primary care services using the most cost-effective providers and interventions and supporting consumer responsibility for self-care and personal health. In 2008, the ANA reaffirmed the agenda.

This vision of the 60 national nursing organizations is not one that puts technology and acute care first. Rather, trusting, knowing relationships between people and their health care providers—whether nurses, APRNs, social workers, physicians, nursing assistants, or family caregivers—are primary. Nurses excel at building these relationships in order to promote health, whether that means helping people to change their behaviors, assisting the sick to recover, or allowing the dying to experience a peaceful death.

What is needed to ensure that the nation is fully utilizing the talents of the nursing workforce?

1. *Ensure an adequate supply of well-prepared nurses in ways that go beyond simply increasing their numbers. This should entail clearly redefining nurses’ roles according to their educational preparation, developing data-driven strategies for workforce development and deployment, transforming nursing education, and requiring residency programs in all settings for new nurses.*

Although a growing number of states have offices or centers that analyze nursing workforce data and promote workforce development, inconsistencies in the types of data and how they are collected have challenged national and state planning efforts. A Forum of State Nursing Workforce Centers was developed in 2005 to share workforce information and strategies; as of 2009, 33 states were participating. The Forum has developed a Minimum Dataset Project to set standards for consistent data definition and collection and to serve as a central repository for nursing workforce data. Expanding this capacity across all states is essential to inform both state
and national workforce strategies. HRSA could take a leading role in supporting such efforts as it addresses national objectives and policies for ensuring an adequate nursing and health care workforce.

As the nursing workforce becomes more educated, it becomes more diverse in its capabilities. The number of nurses with clinical or research doctorates will increase. Although the proportion of nurses with baccalaureate degrees is likely to increase, the demand for nurses will continue to support associate degree preparation as one route of entry into practice. The BSN in 10 or even the MSN in 10 are opportunities to provide educational support for people who may not be able to afford four years of undergraduate education. Such statutory requirements may not be necessary if employers give preferential hiring to nurses with baccalaureate and higher degrees, as has occurred since the 2008 recession; but when the demand for nurses increases beyond the supply, this solution will fall short as employers struggle to fill vacant positions.

We’ll end up with either unsafe care or underutilization of well-prepared nurses if we fail to differentiate among the practice roles and responsibilities of nurses with differing levels of educational preparation and experience. As the need for nurses grows with the aging population and the nation puts more emphasis on primary care and chronic care management, we must weave a new tapestry of health care provider roles and responsibilities. Such redefinitions must consider how to capitalize on the knowledge and skills of registered nurses, advanced practice registered nurses, certified nursing assistants, and family caregivers, as well as those of physicians and other health care providers.

This will also require that nursing get rid of its own traditional barriers to full utilization of LPNs and nursing assistants and adopt a competency-based approach to their roles and functions. This is unlikely to occur without movement toward dismantling the barriers between nursing and medicine. As AARP champions improved access to affordable, high-quality care, its support of removing barriers to APRNs is accompanied by calls for better use of LPNs and nursing assistants, which represents a smart move forward for nursing and consumers.

Redefining and developing competency-based approaches to all health care providers’ roles could be priorities of the new National Workforce Commission that is part of the Affordable Care Act of 2010. The Commission should seek to align the health care workforce with needed shifts in health care delivery. Such redefinition could also occur within hospitals, home care agencies, community health centers, occupational health offices, and all health care organizations. The availability of funding for demonstration projects that explore modified roles for health care providers as prioritized by the Commission could stimulate such local discussions and tests of change. In addition, the Commission could evaluate, test, and disseminate best practices for recruiting, preparing, and retaining more ethnic minority, low-income, and rural providers, and, for nursing, more men. But a visionary approach by this Commission will require that its membership include workforce leaders in the various health care disciplines, including nursing, along with individuals who are not vested in traditional models of professional education and practice. In 2010, nurse Peter Buerhaus was appointed to chair the Commission, but Congress had not appropriated its funding.
Preparing this workforce requires new approaches to nursing education. The 2010 Carnegie report on nursing education provides direction for better integrating clinical and didactic education and developing the clinical judgment and reasoning skills in new nurses across settings. As the health care system shifts to a greater emphasis on primary care, chronic care management, and population-based care, nursing education will need support to innovate with curricula. With Congressional support through Title VIII funding, HRSA can target resources to stimulate such innovation, as it has in the past through its Division of Nursing.

But it’s also unrealistic to expect that any new graduate can withstand the first year of practice and function fully without additional guidance and support. Residencies should be required of all new nurses and these should be available in all clinical settings, rather than continuing the expectation that nurses must cut their teeth in the acute care setting. Similar approaches could also help experienced nurses transition to new settings, return to practice after a hiatus, or move into new roles after obtaining graduate preparation as APRNs.

2. Create and maintain supportive work environments for nurses in which their authority matches their responsibilities, ensuring that they are key members of the health care team, and lead the team when it is appropriate for them to do so.

The Magnet Recognition program and Transforming Care at the Bedside have shown how to retain nurses and engage them fully in professional nursing work, but too few hospitals and other facilities have acquired the Magnet designation or seek to do so. The new Medicare and Medicaid Center for Innovation could fund multisite comparative studies of the outcomes of Magnet facilities. Magnet designation could be associated with enhanced reimbursement under Medicare and Medicaid. Although some data on the impact of Magnet status on provider retention and quality of care are available, more is needed to substantiate an investment of public monies to stimulate other facilities to pursue the qualities and characteristics that mark the designation. Long-term care facilities and home care agencies could be encouraged to apply for Magnet status with enhanced Medicaid and Medicare reimbursement rates as incentives. Better teamwork among nurses, physicians, and other health care providers will only come with team education within universities and health care organizations. Its relationship to patient safety suggests that an investment in teamwork by health care organizations, insurers, and government would reap benefits by improving clinical outcomes and reducing errors and preventable facility-acquired conditions. Interprofessional team education may also help to reduce the longstanding tensions between nursing and medicine.

The leadership of these teams should be driven by the needs of the population being served and the skills and knowledge of the team members. For example, a master’s-prepared social worker with substantial clinical experience may be the best person to lead an interdisciplinary team that is caring for the chronically mentally ill.

3. Shift funding for research from continuing to demonstrate what we already know—that nursing care produces good clinical and financial outcomes—to delineating the best nursing skill mix for specific populations and settings and including nursing interventions in comparative effectiveness research.
There continue to be calls for more data to substantiate nursing’s specific contribution to improving clinical outcomes in all settings. But nursing is being held to a different standard to prove its worth. Consider the case of hospitalists. Hospitalists are physicians who are hired by hospitals to manage inpatient hospital care for a specific group of patients, such as patients on an oncology unit. Today, there are over 20,000 hospitalists and the demand exceeds the supply. But there is a paucity of research on the outcomes of their practice. In 2007, Peter Lindenerauer, the director of the Baystate Medical Center, and his colleagues published in the *New England Journal of Medicine* the first multisite study of the clinical and financial outcomes of hospitalist compared with general internists and family physicians at 45 hospitals. Hospitalists decreased length of stay by an average of 0.4 days and reduced the cost of care by $125 per patient. There was no change in mortality rate or hospital readmissions. Despite these modest outcomes, Laurence McMahon, professor of health policy and management at the University of Michigan School of Public Health, in a commentary in the same issue of the journal, wrote, “The field of hospital medicine is here to stay, so we need to move past studies of costs and outcomes and focus on relevant patient care and systems questions. . . .” It’s time for the same to be said about nursing.

Certainly, refining our understanding of the dose and type of nursing care that is needed for specific outcomes could be helpful in shaping what nurses do and how they are used, and more research is needed on how to improve staffing when there are limited financial and human resources. Research on determining the best skill mix to deliver care and scaling-up nursing innovations in care should be high priorities if we are to shift the focus of health care from acute care to health promotion and prevention.

Nursing research is focused squarely on the most important challenges facing our health care system today—promoting health and managing symptoms and chronic conditions. As such, the National Institute for Nursing Research budget should be increased at least ten-fold. This funding should support investigation of the important clinical questions that are likely to be asked by researchers from many disciplines, including by a growing cadre of doctorate-prepared nurses.

4. **Develop a national standard for scope of practice, education, and credentialing of advanced practice registered nurses and remove statutory and regulatory barriers to full utilization of APRNs.**

Given that APRNs, working independently in some states, provide care of comparable safety and quality to physicians, Medicare and Medicaid should set a consistent evidence-based standard of APRN practice. The Consensus Document on Licensure, Accreditation, Certification, and Education developed by the National Council of State Boards of Nursing and other national nursing organizations provides a blueprint for standardizing these four areas related to APRN practice. Although the standards can be adopted state by state, a national scope of practice law could eliminate or minimize the political conflicts that will undoubtedly ensue with an individual state strategy. The state boards of nursing would retain the responsibility for ensuring that APRNs practicing within their borders have the federally prescribed education and credentials and for handling complaints and disciplinary action.
A national scope of practice law is likely to be accompanied by its own political battles. It would have to reflect the most progressive state nurse practice acts. Otherwise, there is a risk that the law could erect new barriers to the practice of nurses in states that permit independent practice. A federal directive could accomplish much the same until state laws are rectified. Such a directive would specify that any health care organization receiving funding from Medicare or Medicaid must follow a federal definition of APRN scope of practice, effectively overriding state laws, much as occurs now in the Indian Health Service, military facilities, and the Veterans Health Administration.

In addition to addressing how APRN practice is defined, CMS can quickly correct regulatory language that serves to exclude APRNs from functioning within the full range of their scope of education and practice, such as including APRNs as providers who can order home health and hospice services. And in lieu of other federal action, financial incentives under Medicaid or through workforce development funds from HRSA could be provided to states that adopt national standards for licensure, accreditation, certification, and education and remove state barriers to APRN practice.

5. Develop private and public support for evaluating, sustaining, and spreading nursing innovations in care.

The Affordable Care Act leaves much work to be undertaken in order to reform health care into accessible, affordable, equitable, high-quality approaches to promoting the health of individuals, families, and communities. It fails to cover all who live in this country, ensuring the continuing need for safety-net health care services such as nurse-managed centers and retail clinics. The Center for Innovation established by the Act provides an opportunity to expand nursing innovations and explore their operations in concert with accountable care organizations and bundled payments for care across settings. Nursing care and nurses’ roles should be addressed in any proposal submitted for funding by the Center for Innovation or justification provided for its exclusion. It should no longer be acceptable for national and state foundations and government-sponsored demonstration projects to exclude nurse-led models of care simply because they are nurse-led, as CMS did with medical home demonstration projects.

The National Health Insurance Exchange that will be established under the Act should require that all applicant insurers credential APRNs and pay them for their services at the full physician rate.

6. Include nurses on every health-related advisory group at the local, state, and national level.

Few advisory groups on health care—whether governing boards of nonprofit healthcare organizations, workforce commissions, payment reform commissions, public health committees or boards of health—would operate without physician members. Why would they operate without nurses, since these essential providers can bring so much to the table?

It is not sufficient to have a token nurse on such advisory groups. Nurses are a diverse group whether by clinical role, specialty practice, setting, education, or other characteristic. Merely seeking parity in numbers with physicians would turn this aim.
into a numbers game; it should not be. Rather, the aim of nursing membership should be to capture different and creative perspectives on health matters.

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Building local support for nursing can help to identify and develop nurse leaders prepared to be at the table. The Robert Wood Johnson Foundation, in partnership with Northwest Foundation, developed the Partners Investing in Nursing’s Future program to stimulate and direct local philanthropic support for nursing. Although usually thought of in terms of financial support, local foundations are often influential members of their communities and have the opportunity to open doors for nurses, ask why nurses are not appointed to an advisory group, and provide support for helping nurses in their communities develop the skills to be knowledgeable advisers.

Consumers can also advocate better nursing representation on advisory groups. Whether as part of the local AARP chapter or parent-teachers association, consumers can support calls for the participation of nurses in health care deliberations. But nurses can’t wait for others to advocate for them. It’s incumbent upon nurses at all levels to develop the infrastructure for ensuring that nurses possess the skills in policy advisement, identify opportunities for appointments, and develop a list of those nurses who are ready, willing, and able to serve.

Nurses can and will build upon a rich legacy of innovations and commitment to promoting the health of individuals, families, and communities. At this opportune time in reforming the U.S. health care system, the nation can afford no less.

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