Nursing: A New Day, A New Way

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The U.S. health care environment is changing rapidly. Its structure, financing, and delivery are being reconfigured toward an integrated system based on managed care. Increasingly, national interest in health promotion and disease prevention is moving care away from a disease-oriented, institutionally based model to a population-focused, wellness-oriented, and community-based system. Health care consumers are diversifying in age, ethnicity, and socioeconomic status. The approach emerging from these changes and others requires nursing to rethink, redesign, and retool its workforce to meet new challenges. This article analyzes nursing education, practice, and operations. The authors discuss the dilemmas and complexity of developing an effective nursing workforce and identify exemplary changes in other states. They suggest differentiated practice models, educational mobility, increasing representation of ethnic minorities, redevelopment of the nursing workforce, and access to nursing services.

The nation's health care system, driven by (1) reconfiguration of the structure, financing, and delivery of health care, (2) alterations in patterns of health and illness, and (3) demographic diversification within the population, is undergoing fundamental transformation. These trends have a significant impact on education and practice in the health professions. Nursing is no exception. Within a rapidly changing environment, nursing must reform its education, recalibrate its practice, and redesign its workforce to contribute uniquely to high-quality, cost-effective care for the general public. We address the dilemmas and complexity of developing a nursing workforce best suited to practice in an evolving and uncertain future. We identify exemplary changes occurring in other states that might benefit Massachusetts during this time of transition and contend that change involves both opportunity and chaos. A new paradigm requires new solutions.
For years our nation’s health care system focused on acute illness, placing emphasis on providing institutional services at extraordinary costs. Today, the total cost of illness equals nearly 18 percent of the gross national product. The sophisticated technology used to diagnose and treat acute illness has benefited millions of Americans, yet it has outstripped society’s ability to pay for such care, leaving nearly 43 million Americans without health insurance or access to basic health care, and the number is growing.

Spiraling health care costs have resulted in considerable pressure from the public and private sectors for cost containment. Buyers — government, employer, and individual — are moving away from the traditional health care system into managed care, a more cost-effective model. Almost two of every three privately insured Americans are enrolled in a form of managed care.

While there is no consensus with respect to an organizational structure for managed care, its underlying financial concept is to control costs and redistribute financial risks. Managed care providers, who are paid a fixed amount per member, assume responsibility for financial risks for all services covered under a capitated contract. Service delivery in managed care organizations emphasizes primary and preventive care, while coordinating the entire continuum of care “from health promotion and disease prevention to primary and secondary acute care, tertiary care, and long-term care . . . across episodes of illness and pathways of wellness.” Within this broadly configured system, individuals, families, groups, and populations are targeted for services, and individuals are held responsible for their own care. Managed care organizations are accountable for consumer satisfaction, cost reduction, and quality of treatment. The shift into managed care has created a new ground for the corporate sector. Home care, free-standing emergency care, and health maintenance organizations (HMOs) are being targeted. Investor-owned chains, growing swiftly, have gained more than 15 percent of the market in the past five years, a figure that is likely to double in the next five. In theory, the integration of health care across the continuum of services appears to be an efficient approach to providing quality, cost-effective care. The goal of managed care may not be, however, to improve patient care, but to improve the system’s competitive posture “by maximizing revenue and decreasing expense to generate profit that can be used for new expansion . . . or to provide a return on investment.”

The emerging paradigm of health care is also responding to changing patterns of health and illness within the population. In the early twentieth century, the greatest risk for morbidity and mortality was from acute and communicable diseases. Currently, a myriad of chronic illnesses such as hypertension, stroke, chronic lung disease, AIDS, substance abuse, and long-term mental disability pose the greatest threat. Almost half the U.S. population suffers from chronic illness, with nearly 40 million afflicted by more than one. Their ailments increase the number of persons who use health care services and intensify the usage of each. Changing patterns of health and illness give rise to concerns, since seventy-six cents of every U.S. dollar is spent on direct medical treatment of recurring complaints, which consumed 30 percent of national health funds and 50 percent of the federal health budget in 1989. Using the acute-care model to manage chronicity is ineffectual and costly. By and large, the chronically ill need long-term management of their illnesses in the community, within the context of their daily lives, and the demand for care will expand greatly.

U.S. demographics are changing. The percentage of persons aged sixty-five and over has increased from 4 percent in 1900 to 13 percent of the total population, and it is projected that by the year 2030, that figure will be 23 percent and almost half the
elderly will be seventy-five or older. The most dramatic growth is expected to occur between 2010 and 2030, when the 70 million World War II baby boomers begin to reach sixty-five.9 The elderly comprise 14.1 percent of the total Massachusetts population, the tenth highest percentage in the nation, a figure projected to grow to 22.1 percent by 2050.10 The fastest growing cohort of the elderly is the “oldest-old,” who are eighty-five and over. This group is projected to grow from 3.3 million in 1994 to more than 19 million by 2050.11 Moreover, older minorities are growing faster than their white counterparts. In 1980, for example, about 10 percent of all persons sixty-five and older were nonwhite. Ethnic minority elders presently comprise 14 percent of the population, projected to be 32 percent nonwhite by 2050.12 Eighty-five percent of older adults have one or more chronic illnesses that require care over time.13 The increasing aged and ailing population will add unprecedented demands for health services in community and long-term-care facilities.

Our nation is also becoming increasingly multicultural, multiethnic, and socioeconomically stratified. In 1990 the predominant minority population was 12 percent black, 9 percent Hispanic, 3 percent Asian, and 0.7 percent Native American. It is predicted that by 2050 blacks will have increased to 16 percent, Hispanics to 22 percent, and Asians to 10 percent.14 Minority populations suffer disparities in health in comparison with whites. The Report of the Secretary’s Task Force on Black and Minority Health found that black Americans suffered nearly 60,000 excess deaths per year in 1979–1980.15 While a host of factors—socioeconomic, genetic, cultural, and institutional—determines an individual’s health, poverty or near poverty, lack of access to health services, culturally inappropriate and insensitive care underlie many of the health problems of minority groups.16 Health care organizations are called upon to develop culturally and ethnically appropriate services and to recruit a workforce that reflects the changing U.S. demography.

Altering the way health care is structured, financed, and delivered in patterns of health and illness and in population and demographic diversification exerts enormous pressure on health professionals’ education and practice, and workforce patterns includes nursing. We raise two critical questions. Do the present nursing education system and workforce capability meet the demands of the emerging health care market? What mechanisms must be put into place to reform the educational system and to redevelop and redeploy members of the current nursing workforce to meet the challenges?

**Nursing Workforce**

The 2.2 million U.S. nurses form the single largest group within the health care professions.17 Their participation in the labor force is nearly 80 percent, a rate higher than most job categories dominated by women. Ninety-seven percent of all nurses, whose median age is forty-four, are female and white. To enter professional nursing practice, they must acquire registered nurse licensure, an R.N., through a legal process that provides a mechanism for determining minimal competency of practitioners and for protecting the public health, safety, and welfare. Licensure is granted on a state-by-state basis by individual state boards of nursing. Basic eligibility to take the licensing examination, offered by the National Council of Licensure Examinations for Registered Nurses, is graduation from a state-approved school of nursing.

U.S. registered nurses deliver many essential health services in a variety of settings—hospitals, nursing homes, schools, home care agencies, the workplace, community
and rural health clinics, long-term-care facilities, and managed care organizations. Most R.N.’s are prepared as generalists, but the field encompasses an array of specialties that range from critical care, school nursing, occupational health nursing, pediatric nursing, community health nursing, and geriatric nursing to advanced practice in nursing. Nurses are also prepared in administration, research, and education. In 1992 about 495,500 R.N.’s had formal preparation as advanced nurse practitioners, 66 percent from certified programs and 31 percent from master’s degree programs. More recently, advanced practice nurses (APNs) have acquired their education at the master’s level. Of all nurses with advanced practitioner preparation, about three-quarters were providing patient care in primary care settings. They offer a broad array of services, including health assessment, treatment of common acute illness and injuries, and patient education and counseling in health promotion and disease prevention practice.

Massachusetts general law authorizes its board of nursing both to define advanced roles for nurses and to determine their eligibility for those roles. Like other states, the Massachusetts Board of Registration in Nursing recognizes and regulates such APN categories as nurse practitioners, nurse midwives, nurse anesthetists, and psychiatric/mental health clinical specialists. Within nursing, there is an escalating debate regarding the educational preparation of APNs and whether additional regulation is necessary.18 As the health care delivery system continues its transformation, the demand for more highly educated nurses will increase. The emerging integrated managed care provides a relatively unstructured practice environment that requires nurses to possess a high degree of flexibility, independent professional judgment, critical thinking and problem solving abilities, and skills in managing care. To ensure a sufficient pool, the American Nurses Association calls for more federal funding for clinical education at the postgraduate level for advanced practice nurses.19

Where do nurses work? Distribution patterns in 1988 showed that more than two-thirds of all R.N.’s worked in hospital settings, about 7 percent each in nursing homes, community or public health settings, and ambulatory sites, and the remaining 11 percent in nursing education, student health, occupational therapy, and private-duty nursing.20 A concentration of nurses in hospitals began in the early 1920s and started to skyrocket in the late 1960s. Two important trends over the past three decades have influenced the need for more nurses in hospitals. First, Medicare and Medicaid amendments to the Social Security Act of 1935 increased insurance coverage for millions of Americans.21 Patients’ability to pay for care resulted in a huge expansion of hospital beds. Second, the rapid development of sophisticated medical technology after World War II has greatly intensified the need for nurses. For example, hospitals across the nation, which employed 50 nurses per 100 patients in 1972, employed 98 nurses per 100 patients in 1990.22

Placement of the nursing workforce primarily in hospitals is being challenged. The health care landscape is changing. Services are shifting from acute-care hospitals toward ambulatory and community settings to create a less expensive and more comprehensive system. Changing insurance reimbursement mechanisms now reward shorter lengths of hospital stays, and patients are being discharged at earlier stages of recovery than previously. More and more, advanced technology allows critically ill patients to receive care at home, and acute-care hospitals are fast becoming intensive care units. Hospital occupancy rates have decreased,23 nurses have not been recruited to positions vacated by resignations and retirement, and some have been laid off.24 Decreasing staff has affected all levels of nurses, including those in advanced practice.25 It is expected
that downsizing, merging, and closing at least half the nation's hospital beds by the year 2000 will generate a surplus of 200,000 to 300,000 R.N.'s across the country. Opportunities for employment reflect this trend. New graduates are having difficulty finding employment in traditional acute-care hospital settings, particularly in New England. R.N.'s nationally are being displaced from their positions.

Can the 200,000 to 300,000 "surplus" of R.N.'s predicted by the Pew Health Professions Commission be justified? The answer, not really. First, it is based on a traditional acute-care hospital market, using measurements such as budgeted vacancies. Second, it fails to identify specific factors in an analysis of the match between health care needs and workforce demands. The central issue is not whether there will be a surplus of nurses but a question of how to retool and redeploy acute-care hospital nurses to serve the requirements of the emerging market.

Expansion of health care services into ambulatory and community-based settings will call for nurses who are prepared to deliver services at these sites, thereby adding to the overall demand for R.N.'s. This trend is under way. Between 1984 and 1988, the number of nurses employed in ambulatory care settings increased, and home visits covered by Medicare rose by 57 percent between 1980 and 1987. Shorter hospital stays, with subsequent calls for home care, also increase the demand for nurses. Many new R.N.'s will practice in such community settings as nursing centers, health centers, schools, and HMOs. Federal estimates indicate that the number of R.N.'s with bachelor's degrees, who are best prepared to work outside of hospital settings, will fall about 578,000 short of the demand by 2000.

A shifting workforce redefines nurses' roles. In the near future, home health care, community-based agencies, and managed care organizations will comprise the largest market for R.N.'s. Until recently, visiting nurse associations dominated the home care market, providing nonacute care, and a nursing model and values predominated. As the home care industry has grown, so has its changing market share. Large corporations, including hospital chains and suppliers of health care products and services for the home, are aggressively pursuing their piece of the pie. The introduction of high technologies and high-tech therapies in community and home settings is challenging the traditional approach to nursing.

Demands of the emerging market will profoundly change nursing education, nursing workforce design, and nursing service delivery. Retooling the present nursing workforce while preparing students as future practitioners is critical. As nurses become displaced from jobs in acute-care hospitals and other institutions, the American Nurses Association recommends that they be eligible for dislocated worker programs and be reeducated to enter the budding health care market. Redevelopment requires preparation of nurses in the areas of (1) critical care, as hospitals are becoming huge, high-tech, intensive-care units, (2) geriatric care, as U.S. residents are graying and living with chronic illnesses, (3) community health care, as the delivery system is deinstitutionalized and primary care is expanded into ambulatory and community-based settings, and (4) population-based care as the nation refocuses on health promotion and disease prevention within a diversified population. Are students and R.N.'s being educated to meet these demands?
Basic Nursing Education

Unlike the single route of other health professions, preparing nurses can be accomplished through multiple educational models. Study programs vary in length and provide diverse credentials. Regardless of program type, all graduates take the same licensing examination, which measures "minimal safe practice," and candidates who succeed become licensed. The three basic routes to qualification are associate degree, hospital-based diploma, and baccalaureate degree programs. Between 1993 and 1994, 94,870 graduates completed basic R.N. programs nationally. Among them, 28,912 (30 percent) were in baccalaureate degree programs, 58,839 (62 percent) in associate degree programs, and 7,119 (8 percent) in diploma programs. Massachusetts has 41 basic nursing programs: 13 baccalaureate degree, 21 associate degree, and 7 diploma. Between 1993 and 1994, 1,203 (41 percent) graduated from Bachelor of Science in Nursing (B.S.N.) programs, including 33 percent who were licensed as R.N.'s, 379 (13 percent) from diploma programs, and 1,346 (46 percent) from associate degree in nursing (A.D.N.) programs.

The model of multiple entry and exit points in nursing education has evolved over time. Prior to the Great Depression, nursing, perceived as a vocation, emphasized skill acquisition and adherence to traditional values and norms. Later in the 1930s, more formal early education in nursing developed as an apprenticeship model. Hospital-based diploma programs, three years in length, are the present exemplars of such training. During World War II, a significant portion of this type of nursing education was financed by the federal government. The late 1940s saw the development of a trend toward college education, the goal being to establish standard curricula for nurses to protect them from the potentially self-serving interests of hospitals, for which students were the primary source of cheap labor. This trend was further reinforced by the advocacy of educational reformer Lucille Brown for moving nursing courses into institutions of higher education. The first bachelor's degree program was offered at Boston University in 1948, marking the beginning of decline in hospital-based diploma programs, from 90 percent in 1948 to about the present 10 percent.

This coincided with the growth of two-year junior college education, namely, associate degree programs.

Establishment of A.D.N. programs during the post–World War II era was partially an effort to meet society's need for and to respond to an ongoing nurse shortage. The A.D.N. level, similar to the model used by the U.S. Cadet Nurse Corps to train nurses during the war, was based on the premise that they could be prepared in less than three years and emphasized technical skills in patient care. A.D.N. programs mushroomed from the 1960s through the 1980s as hospital beds expanded; the ensuing demand for more nurses was filled primarily from graduates of those programs. In Massachusetts, for example, the programs increased from 6 percent to 19 percent between 1968 and 1978. Since they were shorter, usually two years, and less costly, they presented an educational alternative for nontraditional students, including minorities, older students, male students, and low-income groups. Today, 57 percent of all R.N. education programs at the associate degree level produce the majority of the nursing workforce.

B.S.N. programs offer a baccalaureate degree. The first two years are devoted to general educational courses including natural sciences, social sciences, and humanities. Building on this foundation, the following two years are devoted to nursing theory and
practice across a human life span. With experience, B.S.N. graduates are prepared to assume leadership and responsibility for care in a variety of settings and possess a nascent understanding of the effect of nursing research on patient care. They are eligible to enter graduate programs at the master’s and later the doctoral level, which prepare them for positions as researchers, administrators, teachers, and expert clinicians. B.S.N. programs now account for about one-third of the programs nationally.

Demands of the changing health care system have already affected enrollment in nursing education. A.D.N. enrollment, for example, decreased by one percent in 1994, the first reduction since 1986, and diploma program enrollment continued to decline. In contrast, enrollment in B.S.N. programs increased, with a 1.8 percent increase in generic students, who have no previous nursing experience, and a 10.7 percent increase in R.N.’s pursuing the bachelor’s degree. The Pew Health Professions Commission on the supply and distribution of U.S. health care providers counsels nursing to reduce associate and diploma degree programs because of their “inadequacy in addressing the potential opportunity and enormous demands that will be placed on nursing in the future,” and to increase its preparation at the baccalaureate and graduate levels, which “will permit the nursing profession to develop the information background and experience base to operate more independently, work in community settings, [and] more effectively manage the health of patients.” It is projected that by 2000 only half as many B.S.N. and higher degree graduates as needed will be available, which translates to a deficit of 700,000 such personnel and a surplus of more than 200,000 A.D.N.’s.

The past several decades have witnessed a continuing debate on the issue of entry into nursing practice, namely, how best to provide the public with nurses who deliver safe, cost-effective, therapeutic, quality care, which has been a source of friction within the profession. The American Nurses Association, the National Commission on Nursing, and the American Association of Colleges of Nursing advocate for requiring the B.S.N. as minimum educational preparation. The U.S. Army Nurse Corps, for example, made that degree an entry requirement in 1979, when it decided that all officers must have earned it, and more than 98 percent of its members now have the B.S.N. Some authors echo this position, believing that nurses with this degree demonstrate more skills in psychosocial and familial needs of patients, leadership, teaching, and critical thinking and clinical decision making than nurses with associate degrees. B.S.N.’s are also better prepared to function autonomously. The attributes associated with these graduates are essential for future nursing practice, as the emerging health care system will require nurses with a broad educational base to (1) function independently, (2) demonstrate leadership skills, (3) be research-oriented and manage informational databases in decision making, (4) possess population-based perspectives in health care, and (5) be accountable for their professional practice.

Scale asserts that of three basic models, only B.S.N. programs offer the degree of comprehensiveness, holistic understanding of the human body, mind, and spirit, and depth and breadth of knowledge required for the future. Scale argues that the National Council of Licensure Examination weighs heavily on the competency at associate degree level: “Registered nurses, the largest caregiver group in healthcare, [have] one of the lowest educational levels of all healthcare workers.” In the same tone, Dillon notes that the A.D.N.- prepared nurse does not “fit” the description of the nurses needed for the twenty-first century. These anecdotal arguments lack sufficient data and systematic evaluations.
What is the downside of requiring the B.S.N. as entry to practice in professional nursing? By its imposition nursing faces several dilemmas. First, a majority of the current workforce, although not so prepared, has made significant contributions to the health of the general public and to the nursing profession. Those nurses would likely feel discounted, threatened, and devalued by such a proposal. Second, minorities, low-income, and older nontraditional students might be discouraged by this development, since they tend to concentrate in shorter-length and lower-cost associate degree programs, 90 percent of which are funded through federal, state, and local taxes, while only 50 percent of B.S. education is subsidized by public support. With minorities already underrepresented, the gap between demand and supply of their services may widen. State-level organizations in Massachusetts support all three types of programs.

In 1992, the Special Commission . . . Relative to the Practice of Nursing, in consideration of public support, geographic accessibility, and financial affordability, issued a statement supporting "educational programs to prepare nurses at all levels — from entry through doctoral study." According to the commission, these multiple levels prepare nurses for specific practice arenas with varied areas of expertise and responsibility, which may benefit a diversified health care market. The commission was established in the aftermath of two legislative proposals by the Massachusetts Nurses Association (MNA), namely, to require the baccalaureate degree for entry to professional nursing practice and to establish two levels of nursing practice — professional (B.S.N.) and technical (A.D.N. and diploma). Nursing schools and agencies that opposed this effort dominated the testimony and political process, and the MNA’s effort ended with the legislature’s taking no action. However, it was recommended that the Special Commission study the matter.

Its labyrinthine professional definitions, educational pathways, and practice patterns tend to confuse the general public and create friction within the nursing profession. The lack of clearly defined competencies and differentiations in practice according to educational preparation can lead to ineffective and unfair use of the nursing workforce. Situations are created in which nurses with various levels of preparation perform the same duties or nurses with one level of preparation do everything, or practitioners with different levels of preparation perform different, interrelated tasks. To create an effective workforce, nursing must demarcate its practice.

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**Differentiated Practice**

The rationale for differentiated nursing practice has two fronts: professional and public. Professionally, it leads to increased satisfaction for nurses, provides clear career expectations for graduates seeking professional advancement, utilizes nursing resources efficiently, and compensates nurses fairly on the basis of their expertise, contribution, and productivity. On the public front, consumers are entitled to learn the level of competency, educational preparation, and expertise of the providers. The old saying "A nurse is a nurse is a nurse" confuses the public and relegates all nurses to the lowest common denominator.

Diversified nursing practice, an approach to assuring quality care through the best utilization of nursing resources, allows nurses to fill roles for which they were educated. The purpose of varied practice is to structure nurses’ functions according to education, experience, and competency. Competency connotes a standard of skills and knowledge that is the basis for professional accountability. As health care moves into a
wider variety of settings, attention to the diversity in capability to occupy different niches in nursing becomes important. Each level of differentiation brings various skills and abilities to providing care for consumers. Differentiated nursing practice can be a powerful force in meeting the heterogeneity and complexity of health care requirements.59

In a collaborative effort of representatives of the American Nurses Association, Assembly of Hospital Schools of Nursing, National Association for Practical Nursing Education and Service, National Commission on Nursing Implementation Project, National Federation of Licensed Practical Nurses, National Federation of Speciality Nursing Organizations, and National Organization for Advancement of Associate Degree Nursing, the National League for Nursing developed a statement in support of differentiated nursing practice.60 This multinursing organizations' paper was a response to a social cry for health providers to exhibit effective practice and cost-consciousness.

Several projects have been launched to differentiate nursing practice since then. For example, the Midwest Alliance in Nursing’s project, funded by the W. K. Kellogg Foundation, distinguished between the competencies of A.D.N.’s and B.S.N.’s in three major components: provision of care, communication, and management.61 The project proposed that B.S.N.’s assume more assessment, monitoring, and evaluation roles than A.D.N.’s, and furthermore, that B.S.N.’s use foresight to negotiate long-term goals with clients in developing a holistic plan of care, while A.D.N.’s negotiate with clients to establish short-term goals consistent with the overall plan. Models for differentiated practice, which delineate role, function, and complexity with respect to clinical competencies and decision making, have also been developed in hospitals.62 Diverse competencies for B.S.N.’s and A.D.N.’s have been formulated by the New Jersey State Nursing Association and the Western Interstate Commission for Higher Education.63 All these models include delineating roles among nursing personnel and identifying requisite capabilities for attending to recipients within a specific practice environment.

Massachusetts has seen the implementation of several regional and local initiatives to develop education and practice consortia that include differentiated practice, but only pockets of information about these efforts have been documented.64 Such attempts have been seriously undercut by a lack of comprehensive data to describe the Massachusetts nursing workforce and by the absence of a mechanism to determine current and future needs for nursing supply, distribution, and practice in the region. Until such data are available, the state is hamstrung in its efforts to develop a rational statewide plan to implement differentiation.

In 1995, the Massachusetts Board of Registration in Nursing, in collaboration with the state nursing community, submitted a grant proposal to study the region’s workforce. This proposal aimed at establishment of a statewide system for workforce planning and an ongoing means of collecting, analyzing, and disseminating the data. Massachusetts was a semifinalist, and Boston’s Northeastern University School of Nursing received the $200,000 grant for this project from the Robert Wood Johnson Foundation. Its results will provide valuable information for identifying and analyzing the nursing workforce and lay the groundwork for the development of a differentiated practice model. Information furnished by a comprehensive and aggregate database is essential to ensuring the adequate supply and appropriate use of nurses, proportionate geographic distribution of nurses and educational programs, minority representation, relevant curricula, and adequate numbers of faculty.

The basic premise of differentiated practice not only supports efficiency, it also clarifies paths for career mobility. As we advocate for differentiated practice to best utilize
R.N.'s from varying entry levels, we champion educational mobility that expedites their mastery of new knowledge and responsibilities as they engage in a new health care market.

**Educational Mobility**

Health care is transforming the practice area from an episode-based hospital setting to an integrated and community-based environment. This shift demands nurses competent in comprehensive assessment and risk determination, critical thinking and shared decision making, crisis resolution, cost-effectiveness, research, ongoing cross-site management, and cultural competency. Nurses are also called upon to develop and use information systems and collaborate across disciplines. Such a challenge necessitates educational mobility to enhance the marketability of R.N.'s in the changing health care climate.

Educational mobility refers to a process through which two or more distinct programs cooperate to accommodate the learning needs and career goals of students with minimum repetition of learning experiences. Articulation is one means of educational mobility by which a multilevel nursing curriculum design is organized and taught in a way that promotes transferability of credits from one level to the next. Educational mobility should allow an individual to climb a career ladder that with each rung leads smoothly to a higher academic degree or credential, for instance, associate to baccalaureate.

The National League for Nursing and the American Association of Colleges of Nursing support educational mobility. In fact, their social policy statement calls for “developing an academically, fiscally, and socially responsible system of nursing education that will assure the educational mobility of individuals who elect to pursue additional academic preparation in nursing . . . and accommodate an increasingly heterogeneous student population.” Educational mobility will also help to satisfy the “continuing high demand for nurses with baccalaureate and higher degrees in nursing, and encourage programs to advance the educational levels” of nursing.

There are wide variations in the degree to which nursing programs are distinct from one another. Articulation models range from case-by-case negotiations between individual programs to areawide projects such as southwest Florida’s, which include licensed practical, associate degree, and baccalaureate degree. Other noteworthy statewide articulation plans in higher education exist in Maryland, Colorado, Connecticut, and Georgia. These exemplars start by identifying the common core knowledge and distinct differences of each nursing track. They then restructure educational levels, which allows transfer from lower-division to higher-division schools in the same field as long as mutually agreed-upon standards or criteria are met.

If the nursing education system was perfectly articulated, there would be no need to validate previous knowledge or even to have an open curriculum. The LPN curriculum would constitute the first year of the associate degree curriculum, the associate degree curriculum would constitute the first two years of the B.S.N. curriculum, the B.S.N. curriculum would constitute the essential prerequisites for the MSN curriculum and the MSN curriculum would be an integrated component of the doctoral nursing program.
The Massachusetts Board of Registration in Nursing supports and promotes efficient educational mobility for nurses. Some of its nursing schools have made one-to-one agreements between individual programs for educational articulation and some have a more comprehensive agreement. For example, the University of Massachusetts Dartmouth, in collaboration with regional consortia of associate degree, diploma, and licensed practical nursing programs, has developed an area articulation plan that enables nurses to pursue a continuum of education throughout their professional careers. A uniform statewide articulation plan that would standardize the trajectory of nurses who need and desire to continue their education has not yet been developed, for its creation requires a political process. Consortia from both private and public sectors have to be established to identify, discuss, debate, analyze, negotiate, compromise, and finally agree on political solutions to a statewide plan. In this process, the nurse educators' willingness to explore the commonalities of educational programs is a prerequisite for the model development. Similarly, R.N.'s' previous learning and professional experience must be valued and recognized. Policies regarding transfer of academic credits for graduates have to be developed. The awarding of transferred credits is most appropriately based on course content and learner outcomes in addition to number of courses and class year.

Educational mobility is also enhanced through collaboration between education and service. Employers can facilitate mobility through creative scheduling options, tuition reimbursement, scholarship aid packages, and resource persons who can help employees sort through the various existing options, whether local programs, credible self-paced programs, or distance education with competency-based packages. A model of distance education overcomes geographic barriers for some students. Well-coordinated approaches assure mobility that will best serve individual students, educational institutions, the nursing profession, and the general public.

Furthermore, educational mobility in nursing helps to level the playing field for the socially, economically, and educationally disadvantaged. For years, urban health sectors have fulfilled a societal role by employing inner-city poor and others who have moved from entry-level jobs into careers in one of the professions. Some argue that the use of the health care sector is a vehicle to provide upward mobility to the lower classes, whose members view it as a major source of employment, but we disagree. Special efforts, public and private, are needed to aid promising individuals who began in entry-level positions to assume leadership roles through expanded educational pathways. Existing career ladder programs must be broadened to make upward mobility as flexible, feasible, and accessible as possible. Just how this might be done is beyond the scope of this study.

As the health sector is restructured and nurses in the workforce relocate to new environments, their practice and purpose will be redefined. This sector must address their training and retraining requirements and develop programs that prepare them for redeployment from practice in acute care to practice in home health, nursing homes, and managed care or allow them to remain in an acute-care setting but practice at the highest level of acuity and critical care. In order for nurses to be responsive to the changing health care environment, nursing must retool its workforce.
Retooling the Workforce

Nursing retooling is under way in several states, including Colorado, New York, South Dakota, Utah, and Washington. In these states, nurses associations have been active in helping to enact legislation for the establishment of redevelopment programs for R.N.’s who have been displaced by hospital restructuring. Mississippi joined their ranks in 1996 with the passage of Senate Bill 2269, the Office of Resource Development Act. The Mississippi model is unique in combining public and private funds in an effort to “confront the challenge of moving the nursing profession proactively toward a strong future by the planning and implementation of a program for workforce redevelopment.” Concurrent with the passage of the bill, Mississippi received approximately $200,000 from the Robert Wood Johnson Foundation’s Partners in Caring Program. The state combined legislatively mandated seed moneys with private funding to establish the Office of Workforce Redevelopment. Its goals are (1) to establish a statewide plan to assist nursing educators and health care providers to meet the challenge of workplace changes through enhancement of nursing education and practice skills, and (2) to develop a statewide annual nursing workforce survey. Projected outcomes are (1) to develop a model to delineate a common core of nursing knowledge to assist students in articulation and mobility within the multilevel nursing educational system; (2) to develop and implement a state educational program directed toward nursing educators regarding health care delivery system changes and the impact these changes will have on curricula and on the retraining needs of nurses; (3) to develop and implement a systematic annual survey for nursing workforce needs and projections; (4) to establish a model for statewide career counseling for new graduates and nurses displaced owing to changes in the health care delivery system; and (5) to develop continuing education programs to enhance job mobility within the health care workforce. This model mirrors the work of a similar Northeastern University project, and it will be interesting to compare the two results. The Massachusetts health care system is already changing. In Mississippi, the full impact is still two to three years down the road. We suggest that the following areas, which deserve special emphasis because of their specific importance to nursing education and practice, be included in the retooling.

Caring for Older Adults

As indicated previously, the population is aging, particularly in Massachusetts. This trend demands geriatric, gerontological, and long-term-care nursing services, both in homes and in facilities. It is projected that roughly 260,000 geriatric nurses will be needed by the year 2000. Yet not enough nurses have the education necessary to meet such a demand. According to the American Nurses Credentialing Center, a subsidiary of the American Nurses Association, of the 2.2 million U.S. R.N.’s, only 16,852, approximately 0.08 percent, are certified in gerontology. Most new graduates indicated a clear preference for working in an acute-care hospital over working in long-term-care facilities. Factors cited for spurning the latter include the disincentives of lower pay, heavier workload, lack of opportunity for professional advancement, and negative media images. Efforts must be made to recruit new graduates to enter gerontological nursing and to counsel nursing assistants and aides, whose patients comprise the majority of personnel in long-term-care facilities, to advance their careers through educational mobility. Again, a statewide articulation plan would facilitate it.
The shortage of gerontological nurses and lack of interest in working in gerontology can be partially explained by the lack of a gerontological curriculum in nursing education. Many undergraduate programs have no separate courses in gerontological nursing, and few faculties are prepared in this speciality. Furthermore, the National Council of State Board Examinations for R.N.'s gives insufficient attention to developing test questions in geriatric and gerontological nursing and the long-term-care needs of older adults. We recommend that all basic programs incorporate these subjects in their educational curricula, including theories of aging, the aging process, age-related changes, the scope and practice of gerontological nurses, and gerontological research. Both curriculum and clinical experience in gerontology should be multidisciplinary in perspective and structured to engage students in the dynamic interplay that occurs between older adults, their families, the environment, and the sociopolitical structure that affects and is affected by the phenomena of aging.

Services required by older adults with chronic conditions encompass preventive, supportive, intermittent, and long-term care, many of which can be provided in the community or in the home. Nursing management can be a viable, cost-effective alternative to providing traditional, institution-based long-term and chronic care services to this population. Nursing's holistic perspective of human beings and its background in the biological and behavioral sciences offer a strong basis for addressing the full needs of elderly clients. Care management skills are those associated with providing continuing cost-effective care, understanding the total trajectory of disease processes, using a database for decision making and care planning, and coordinating and monitoring the quality of services. The concept of care management for older adults must be integrated into gerontological practice and education. At the federal level, funding for gerontological traineeships is much needed. Such support provides educational opportunities and incentives for both faculty and students.

Equally important, regulatory changes are necessary to address service reimbursements for gerontological nurse practitioners. The American Nurses Association reports that care provided by nurse practitioners compared with care provided by physicians is equivalent in terms of satisfaction with health care provided, compliance with treatment recommendation, and knowledge of health status and treatment regimens. Patients cared for by nurse practitioners required slightly fewer hospitalizations and the cost per visit was 39 percent lower than that for a visit to a physician. Despite the viability of a care management model, a major difficulty is funding, since many of advanced practice nurses' services are not covered under current reimbursement mechanisms. Although data related to the effectiveness of nursing care management in community-based settings are available, direct third-party reimbursement for nursing services has not been secured.

Managing Information

Transformation from an industrial age to an information age brings new meaning to nursing education and practice. Distance education and digital and interactive multimedia are becoming viable alternatives to traditional classroom teaching. In the practice arena, dramatic developments in health care and information technology are affecting people's lives. Electronic synthesis of patients' histories and research findings
are employed, for instance, to support and provide diagnostic decisions and treatment recommendations. Health care decisions will be increasingly data-driven, and skills in managing and utilizing information databases will be integrated with nurses' clinical decision making. Nurses must therefore be prepared to collect, analyze, and utilize data through information technology. In the future, an increasingly informed and assertive public will use information technology for guidance and support concerning their health and become more involved in making decisions about their care. Accordingly, teaching health skills through information technology will be critical to meeting the needs of informed consumers.

Moreover, there is growing use of and interest in telecommunication technologies, called telehealth, in delivering health care services. The mechanisms of telehealth include telephones, computers, interactive video, and teleconferencing. Telecommunications have the potential to expand access to care across state and country boundaries, which has implications for a state-based regulatory system whose primary responsibility is the protection of the public. The issue of cross-state practice through the use of telehealth by nurses can be difficult because laws and regulations governing nursing practice differ from one state to another. It is often not clear which state laws will apply to which nurses in furnishing telehealth services across states. The question of how such a regulatory system can effectively adapt to the increased utilization of telecommunications in health care while safeguarding the safety and welfare of the citizens has yet to be answered. The American Nurses Association, in response to the use of emerging telecommunication technologies within health care, suggests developing policy, standards, regulations, safeguards, and monitoring mechanisms to protect the general public.\[^{85}\]

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**Nursing Practice and Research in the Community**

Nurses are called on to develop community-based practice and research skills because greater numbers of acutely ill patients are being discharged early from hospitals and cared for in the home and through community agencies. Nurses have a key role in managing patient care in community settings. They coordinate care and integrate its delivery whether the goal is to improve clinical outcomes, provide less expensive care, or improve patient satisfaction. Key competencies for community-based practice include assessment, covering that of individuals and their families, groups, and populations, understanding the diverse nature of communities, and coordination with other disciplines. Community treatment in the managed care model particularly emphasizes consumer education, self-care, and preventive services. Nurses must learn to empower and motivate those they serve to participate in their own care. These two qualities are critical variables in providing quality care and enhancing its outcomes.\[^{86}\] Another important quality for nurses in the emerging paradigm is the development of political assertiveness to influence structural variables affecting consumers' health. Just as they advocate for clients, nurses must become more powerful in advocacy on their own behalf.

A changing health care delivery system also introduces a new purview for nursing research. Population-based research and result measures are two areas in which nursing can make a significant contribution. Such research strives to understand the spectrum of health within populations that encompass diverse levels of human conditions. Because
people are collections of individuals, nurses must study the interaction between and among those whose health experiences are shaped by macrostructures of history, relationships, politics, economics, and environments and recognize the fundamental tenets of multiculturalism and working with diversified communities.87

Restructuring and redesigning the health care delivery system has dramatically altered the care environment. Determining the effectiveness of the emerging system calls for conclusion studies, research that evaluates the quality and effectiveness of services, structures, and organizations. Until fairly recently, national studies of health care have focused on morbidity, disability, and mortality. Such measures can be problematic for nurses, whose focus is not on disease but on human responses to existing or potential health problems, and ultimately on improving clients' quality of life.88 Result measures for nursing practice and education have to reflect quality of care and cost-effectiveness. In response to the need for broader outcome measurement, the Agency for Health Care Policy and Research (AHCPR) was established through enactment of the Omnibus Budget Reconciliation. The AHCPR's research program examines the availability, quality, and costs of health care and investigates ways to improve it.89 AHCPR funding facilitates health professions, enabling nurses to conduct research on patient effects.

The clear articulation of nursing interventions is necessary to provide indexes for developing nursing final measures. Although nursing has been slow to clarify to the public exactly what nurses do and whether their efforts make a difference in patient outcome, progress has been made. For example, the Nursing Minimum Data Set was developed in 1987 to establish uniform standards for collecting data in nursing services,90 and the University of Iowa Intervention Project developed comprehensive standardized language for nursing interventions.91 Such research provides policymakers with data from which to make informed decisions in relation to access to care, allocation of resources, cost benefit, and quality of care. Still, more efforts are required to make available on automated systems national data for nurses' actions, functions, interventions, and services that promote clients' quality of life.

Diversify the Nursing Profession

Demographic diversification within the American population has important implications for nurses. During the first half of the 1990s, the U.S. minority population grew by 14 percent compared with a 3 percent growth in the white population. Between 1990 and 1995, the Asian population grew 23 percent, the Hispanic population 20 percent, and the African-American population 8 percent. Hispanics are projected to outnumber African-Americans within the next fifteen years.92 By 2050, about 50 percent of the population will be nonwhite.93

Policymakers and health care organizations are challenged to develop culturally and ethnically appropriate delivery systems for which to foster a disparate workforce. Does the current nursing profession represent the diversity of the American population at large? The answer is no, the nursing workforce is far less diverse than the nation's population. Only 9 percent of all R.N.'s come from racial/ethnic backgrounds: African-Americans 4 percent; Asian/Pacific Islanders 3.4 percent; Hispanics 1.4 percent; and Native Americans 0.4 percent; men account for about 4.3 percent.94 New England, with only 3 percent of the total, has the lowest number of ethnic minority nurses in the nation.95
Nursing school faculty is less diverse than staff in other disciplines nationwide, minorities comprising 8.8 percent of all nursing faculties versus 10 percent for faculties within all other disciplines.\textsuperscript{90} In the north Atlantic region, 92.9 percent of nursing faculty are Caucasians, with only 7.1 percent minority.\textsuperscript{97} Between 1980 and 1990, the number of black R.N.'s rose by only 0.5 percent, and from 1989 to 1992, the percentage of black students enrolled in R.N. programs fell from 10.3 percent to 8.6 percent. Simultaneously, among all other college students the percentage of blacks climbed from 8.7 to 9.3 percent.\textsuperscript{98} Furthermore, the health-sector labor force is shaped like a pyramid, with blacks and other minorities underrepresented in advanced practice at the top, and over-represented in nurse's aides and assistants at the bottom. Minority underrepresentation in health professions indicates a failure to recognize and fully develop the human resources in our assorted population.\textsuperscript{99} As indicated previously, minority populations continue to suffer health disparities in comparison with whites. As health professionals, nurses clearly see the effects of inequality on many people of color: their inability to access and pay for health services, lack of equitable, culturally appropriate health care, poor outcomes of care, and exclusion from the health-planning and decision-making processes that affect their care. Inequality and inaccessibility lead to disparities evidenced by much higher rates of morbidity and mortality in minorities than in the population at large. Some discrepancies might well be decreased if the largest number of health care providers and nurses equally reflected America's changing demographics. Minority nurses have helped to reduce many of the barriers to health care that ethnic minority groups encounter, encouraged high-risk groups to seek care, and played a vital role in the lives of clients of color.\textsuperscript{100} Minority nurses and nursing students are more willing to work in geriatric settings, as indicated by a 1981 research project that surveyed 3,942 student nurses in forty nursing education programs and 5,300 R.N.'s concerning their willingness to work in that field.\textsuperscript{101} The study revealed that proportionately more minorities, about 60 percent, both nursing students and R.N.'s, intend to or already pursue care of the elderly than nonminority personnel, 40 percent. The nursing profession can no longer afford to prepare nurses to care for patients from the standpoint of only one cultural or racial group — white, middle-class male — and effective care can no longer come in a single form to fit the needs of a heterogeneous society. The American Nurses Association indicates that inattention to cultural diversity is no longer merely morally negligent, it is also economically impractical because a culturally varied cadre of nurses is crucial for providing cost-effective, culturally competent care to an increasingly disparate patient population.\textsuperscript{102} Nursing must intensify its efforts to reflect the same dissimilarity in its workforce.

As nursing calls for increasing ethnic variety within its ranks, so must it integrate cultural competency into its educational experience. Multiculturalism has to be embraced within the core of the nursing curriculum. Existing ideologies of domination and oppression must be examined critically to develop vital consciousness among nurse educators, administrators, and students. The realities of racism, sexism, and classism must be understood to appreciate how discrimination continues to manifest itself in the health care system and in society.\textsuperscript{103} Culturally sensitive care includes understanding oppressed group behaviors and recognizing that clients from many cultures may mistrust and be intimidated by a historically unfriendly system. To adopt diversity in the
educational environment it is most important that we listen as ethnic minority students express their concerns, ideas, issues, and suggestions and appreciate that their rich culture and experience are necessary to augmenting learning.

Equally as important are the recruitment and retention of minority nursing students. Achievement of this end requires major long-term strategies, since increasing ethnic representations cannot be accomplished simply by implementing standard marketing or tutoring programs. The mission of the Boston Area Health Education Center (BAHEC), formed in 1978, is to alleviate labor shortages in medically underserved areas of the city. It is affiliated with the Department of Health and Hospitals, Boston University School of Medicine, and a network of neighborhood health centers, and its programs are supported in part by the University of Massachusetts Medical Center/Statewide Area Health Education Center, the Boston Private Industry Council's Action for Boston Community Development, the National Institutes of Health, the Department of Health and Human Services, Division of Disadvantaged Assistance, the Department of Health and Hospitals of the City of Boston, Inc., and a collaboration of participating health career/educational programs. BAHEC currently offers programs in three areas — health education, youth programs, and adult training — designed to make opportunities in health available to minority populations, to improve the quality of health care in Boston's inner-city neighborhoods, and to recruit minority and other underserved populations for health careers.

Strategies for career development have to be addressed as early as seventh grade. An early start helps minority students meet admission standards and process educational content and skills necessary to success in nursing programs. High schools should plan special recruitment programs to introduce minorities to the nursing profession. Counseling services may also be important for some minority students who are enrolled in predominately white schools, for they may experience a "cultural clash" in the white milieu. Some people may consider minority students "not smart enough" and their cultural and language differences deficits rather than variations. Many nursing faculties must analyze their perspectives critically. Public funding is also necessary to support academically qualified but financially disadvantaged students. Educational mobility and career ladders are crucial mechanisms for minorities entering nursing at less than the baccalaureate level.

Affirmative action policy is necessary to the achievement of diversity in a nursing workforce that can meet the health care needs of the nation effectively. The elimination of affirmative action at a time when society is becoming more multifaceted not only threatens to turn back the clock in the strides made by the civil rights movement, but may also complicate and worsen the health disparity between whites and minorities and translate into underrepresentation of ethnic minorities in nursing. Support for affirmative action springs from two major concerns, the first of which is to assure that individuals who achieve their full potential and contribute to the well-being of society are properly recognized. The second is the nation, whose economic growth and social cohesion depend on its paying attention to disenfranchised and marginalized individuals and groups.

When ethnic minority clients seek health services, they bring along their cultural beliefs, values, and health practices and expect the providers to be considerate of their culture and sensitive to their needs. Our diversifying population creates a mandate for
nurses to provide cultural-specific health care. It is well documented that ethnic group nurses are at least twice as likely as their white counterparts to practice nursing within a culturally mixed area. An ineffective monocultural approach to nursing will be even less effective in the future. These, too, are reasons for retaining affirmative action!

Access to Nursing Services

There is ample evidence that nurses play a vital role in providing quality and cost-effective care to the general public. Nurses who teach patients in nursing homes reduce hospitalization rates among the elderly. Nurses deliver needed services through intensive home visits to pregnant women, mothers, and infants, and help them to connect with other health and human services. Clinical nurse specialists follow up on very-low-birth-weight infants who are discharged early and keep them well at home, saving $18,560 per infant in hospital fees. Nurses promote healthy groups through neighborhood and community health nursing to improve consumers’ access to care. A nursing community service project helps young victims of domestic violence. Nurses reach out to underserved, poor, marginalized, and high-risk populations in conducting health screening and teaching health promotion and link them to community health services. A 1996 survey by the Peter D. Hart Association reveals that Americans are receptive to R.N.’s performing more basic health care services and providing home care to the elderly. Nurse practitioners and clinical nurse specialists have been found to lower cost and improve access to primary care for the poor in urban and rural settings. Nursing serves a pivotal role in helping and empowering consumers to take charge of their health. "The nursing profession is critical to a smooth transition from an episode-based and hospital-centered delivery system to an integrated continuum of care model."

The present system of insurance coverage, however, serves as a strong disincentive to providing services in the home and other non-acute-care facilities in spite of the emerging health care model. Payment policies and market forces continue to direct community and home care agencies to focus narrowly on the episodic care of acutely ill individuals. Nursing has long been concerned about the methods of payment for nursing services in institutions. Historically, nursing service costs in hospitals have often been and are lumped into the general category of operating costs under broad categories such as room and board. Charges for professional nursing care to patients should be removed from the daily room charge and billed separately as professional services. The flaw of a business-first and patient-care-second insurance system results in significant numbers of hospitals costing out nursing care. Nursing accounts for only about 20 percent of an average bill despite the fact that professionals spend twenty-four hours in around-the-clock care at patient bedsides. Money must be placed where the care is.

Reform is needed at the national level, particularly in nurse reimbursement policies. Data are extremely critical to assessing and analyzing the nursing labor force and the cost/service ratio and to interpreting nurses’ roles in a wide range of care across a health spectrum such as prevention, geriatrics, and education. It is important for hospitals to have precise information about the costs and utilization of nursing service personnel in order to make the most appropriate and cost-effective decisions about assignments and to determine to what extent nursing care units are revenue or cost centers.

Federal policy should be reformed to allow for broad inclusion of clinical nurse specialist and nurse practitioners as Medicare and Medicaid providers. Widespread use of nurses as primary care providers in a variety of health care delivery settings would
realize substantial savings to the American public while increasing admissions of underserved populations, if the nation's goal is indeed healthy people by 2000. Nurses as cost-effective providers have more than a decade's data supporting the theory that nurses could replace relatively expensive physicians without impairing the quality of care.

A changing health care environment is dynamic, evolving, and challenging. As the nation explores reform, a window of opportunity for nursing opens. The profession, however, faces the challenge of determining the effectiveness of its workforce within a rapidly changing system. A new day calls for a new way. Nursing must (1) carve out its niche in the fundamentally changing arrangement; (2) become partners in care with an increasingly graying and browning consumer population; (3) utilize new biotechnical and information technology in managing care; (4) provide consumer health care through community/population-based services; and (5) engage in primary care with emphasis on health promotion and disease prevention. To utilize the nursing workforce effectively while preparing students for the next millennium, differentiated practice, educational mobility, and workforce retooling is imperative. Analysis of the nursing workforce must acknowledge continuing contributions of practicing nurses. Equally important, nursing must pay more than lip service to increasing ethnic diversity within the profession. The profession must also move beyond the division and ferment within its ranks, which are no longer tenable and in the long run will not add to the interest and purpose of the health care system and the people it serves. Massachusetts nursing must position itself proactively to ride the wave of change rather than crash into it. Finally, nurses must become much more astute and active in influencing public policy. Participation in policy development and political dialogue is vital not only for nursing, but most important, for the health and well-being of the general public. Nursing has responded well to change in the past. It will once again meet the challenge of this new day.

Notes

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32. ANA, “Environmental Scan Update and Dialogue.”
33. Ibid.
34. NLN, Nursing Data Review.
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