The Future of Nursing Education: Ten Trends to Watch
Barbara R. Heller, Marla T. Oros, and Jane Durney-Crowley

The millennium has become the metaphor for the extraordinary challenges and opportunities available to the nursing profession and to those academic institutions responsible for preparing the next generation of nurses. Signal change is all around us, defining not only what we teach, but also how we teach our students.

Transformations taking place in nursing and nursing education have been driven by major socioeconomic factors, as well as by developments in health care delivery and professional issues unique to nursing. Here are 10 trends to watch, described in terms of their impact on nursing education.

1. Changing Demographics and Increasing Diversity
2. The Technological Explosion
3. Globalization of the World's Economy and Society
4. The Era of the Educated Consumer, Alternative Therapies and Genomics, and Palliative Care
5. Shift to Population-Based Care and the Increasing Complexity of Patient Care
6. The Cost of Health Care and the Challenge of Managed Care
7. Impact of Health Policy and Regulation
8. The Growing Need for Interdisciplinary Education for Collaborative Practice
9. The Current Nursing Shortage/Opportunities for Lifelong Learning and Workforce Development
10. Significant Advances in Nursing Science and Research

1. Changing Demographics and Increasing Diversity

Population shifts in the United States have affected health care priorities as well as the practice of nursing. Due to advances in public health and clinical care, the average life span is increasing rapidly. By 2020, more than 20 percent of the population will be 65 and older, with those over 85 constituting the fastest growing age group.

Greater life expectancy of individuals with chronic and acute conditions will challenge the health care system’s ability to provide efficient and effective continuing care. Significant increases in the diversity of the population affect the nature and the prevalence of illness and disease, requiring changes in practice that reflect and respect diverse values and beliefs. Disparities in morbidity, mortality, and access to care among population sectors have increased, even as socioeconomic and other factors have led to increased violence and substance abuse. Nursing practice, education, and research must embrace and respond to these changing demographics, and nurses must focus on spiritual health, as well as the physical and psychosocial health of the population.

Student demographics are also changing. Ethnic and racial diversity of nursing schools has increased dramatically, creating a rich cultural environment for learning. Students are entering schools of nursing at an older age and are bringing varying college and work experiences, as well as more sophisticated expectations for their education. They are typically employed in full-time careers, and many are raising families, which places constraints on their educational experiences and necessitates greater flexibility in scheduling.

Schools of nursing must be prepared to confront the challenges associated with today’s more mature student body, and educational methods and policies, curriculum and case materials, clinical practice settings, and research priorities need to value and reflect the diversity of the student body, as well as the population in general. At the same time, schools must focus recruitment efforts on the more traditional, younger student.
2. The Technological Explosion

The rapid growth in information technology has already had a radical impact on health care delivery and the education of nurses. Advances in processing capacity and speed, the development of interactive user interfaces, developments in image storage and transfer technology, changes in telecommunications technology, and the increased affordability of personal computers have contributed to the explosion of information technology applications. Advances in digital technology have increased the applications of telehealth and telemedicine, bringing together patient and provider without physical proximity. Nanotechnology will introduce new forms of clinical diagnosis and treatment by means of inexpensive handheld biosensors capable of detecting a wide range of diseases from miniscule body specimens.

Dramatic improvements in the accessibility of clinical data across settings and time have improved both outcomes and care management. The electronic medical record will replace traditional documentation systems. Through the Internet, consumers will be increasingly armed with information previously available only to clinicians. Electronic commerce will become routine for transacting health care services and products.

Nurses of the 21st century need to be skilled in the use of computer technology. Already, distance learning modalities link students and faculty from different locales and expand the potential for accessible continuing professional education. Technically sophisticated preclinical simulation laboratories will stimulate critical thinking and skill acquisition in a safe and user-friendly environment. Faster and more flexible access to data and new means of observation and communication are having an impact on how nursing research is conducted.

3. Globalization of the World's Economy and Society

Globalization has been brought about by many factors, including advances in information technology and communications, international travel and commerce, the growth of multinational corporations, the fall of communism in Eastern Europe and the Soviet Union, and major political changes in Africa and Asia. With the "death of distance" in the spread of disease and the delivery of health care, there are both extraordinary risks and extraordinary benefits. Along with the potential for rapid disease transmission, there is potential for dramatic improvements in health due to knowledge transfer between cultures and health care systems.

Nursing science needs to address health care issues, such as emerging and reemerging infections, that result from globalization. Nursing education and research must become more internationally focused to disseminate information and benefit from the multicultural experience.


The Educated Consumer Despite some information gaps, today's patient is a well-informed consumer who expects to participate in decisions affecting personal and family health care. With advances in information technology and quality measurement, previously unavailable information is now public information, and consumers are asked to play a more active role in health care decision making and management. The media and the Internet have facilitated this trend.

Technological advances in the treatment of disease have led to the need for ethical, informed decision making by patients and families. Consumers are thus becoming more interested and
knowledgeable about health promotion as well as disease prevention, and there is increased acceptance and demand for alternative and complementary health options. The increased power of the consumer in the patient-provider relationship creates a heightened demand for more sophisticated health education techniques and greater levels of participation by patients in clinical decisions. Nurses must be prepared to understand this changed relationship and be skilled in helping patients and families maximize opportunities to manage their health.

Alternative Therapies and Genomics Amazing growth is taking place at opposing ends of the technological spectrum. The impact of the Human Genome Project and related genetic and cloning research is unparalleled. Gene mapping will drive rapid advances in the development of new drugs and the treatment and prevention of disease. Technological sophistication of the highest order is required for this research, which has the potential to lead to unparalleled ethical questions and conflicts while bringing about critical diagnostic and therapeutic developments.

At the low-tech end of the spectrum, the voracious demand by consumers for "alternative" or "complementary" therapies to enhance health and healing has begun to influence mainstream health care delivery. Several academic medical centers now have offices of alternative medicine, and the National Institutes of Health recently funded new initiatives dedicated to this field. Increasingly, major health systems are seeking ways to provide both traditional, Western medicine while offering the best of the alternative therapies to their patients.

As is true for many trends, alternative medicine holds both promise and peril. While it is thought that it may unlock behavioral and spiritual components of health and healing heretofore resistant to most conventional medicine, risks of consumer fraud, therapeutic conflict, and patient noncompliance are real. Nursing research has the potential to enhance knowledge regarding what constitutes a "healing" therapy. Nursing education and practice must expand to include the implications of the emerging therapies from both genetic research and alternative medicine, while managing ethical conflicts and questions. The inclusion of nontraditional health care providers may augment the health care team.

Palliative and End-of-Life Care Technological advancements in the treatment of illness and disease have created new modalities that extend life while challenging traditional ethical and societal values regarding death and dying. Greater recognition of the need to ensure comfort and promote dignity is reflected in the now nearly universal promotion of advanced directives, organ donation, and palliative care for the terminally ill. New settings for care, such as inpatient and home-based hospice, and new forms of care, including pain management, spiritual practices, and support groups and bereavement counseling, are now likely to be part of well-developed health care systems. A significant gap in the body of scientific knowledge and clinical education with regard to palliative and end-of-life care remains, and nursing education must prepare graduates for a significant role in these areas.

5. Shift to Population-Based Care and the Increasing Complexity of Patient Care

Rising costs and an aging population have led to new settings and systems of care across the health care continuum. Managed care and risk-based contracting mechanisms have forced a shift from episodic care with an acute orientation to care management with a focus on population-based outcomes.

The marriage of care with cost requires nursing professionals to have an understanding of practice methods that improve quality, respond to clinical complexity, and lower costs. Patients in inpatient settings are increasingly more acutely ill; the standard ratio of critical care/specialty beds to general use beds in hospitals today is close to 1:1, up substantially from a decade ago. Furthermore, expanded life expectancy has led to increases in the number, severity, and duration of chronic conditions, thereby increasing the complexity of the care provided and managed by
Providing services for defined groups "covered" by managed care will demand skills and knowledge in clinical epidemiology, biostatistics, behavioral science, and their application to specific populations. Nurses must demonstrate management skills at both the organizational and patient care levels. These concepts must be incorporated into the nursing curriculum.

6. The Cost of Health Care and the Challenge of Managed Care

Cost of Health Care A concern of businesses and governments for at least 30 years, the cost of health care in the United States has approached 15 percent of the total gross national product. Thus, individuals have joined the debate about health care costs. Despite the fact that more than 40 million Americans lack health care insurance coverage, and certain health indices lag by a wide margin behind those of other societies, total health care spending in this country significantly outstrips that of other developed countries. Many reasons have been suggested, including the advanced technology available to virtually all residents through academic medical centers, the scientific and technologic infrastructure that has led to most of the diagnostic and therapeutic breakthroughs in medicine, cultural norms regarding aging and end-of-life, the cost of violence and drug addiction, and the growing economic and health disparity between segments of the population.

Concerns about cost have led to the popularity of managed care options, first by corporations for their employees and now by governments, through the Medicare and Medicaid programs. Despite recent federal budget surpluses and proposals to expand funding and benefits in Medicare, there is serious concern among economists, legislators, and bureaucrats about the long-term solvency of both publicly funded programs.

Concerns about cost are present in every form of nursing practice; they affect how work is organized, treatment plans for patients, and patients' perceptions of and participation in care. For example, even individuals with health insurance are wary of increased out-of-pocket expenses and noncovered services. And there is heightened concern about pharmaceutical costs, fueled, in part, by the development of sophisticated new drugs.

Managed Care and Reimbursement Challenges Within both the public and private sectors, managed care is quickly becoming the dominant reimbursement mechanism for health care providers, bringing both opportunities and problems. Despite the promise for flexible financing that managed care risk was thought to offer, provider contracts are still based on fees for service, reducing the incentives to truly manage care, prevent illness, and promote health. Nursing professionals, who have historically taken the lead in health education and health promotion, are disappointed by the lack of financing and reimbursement available through managed care organizations for these vital services. However, advanced practice nurses - nurse practitioners and case managers in particular - have benefited greatly by the managed care movement. Demand for these lower cost providers has dramatically increased, and their competence and quality in the primary care field have been acknowledged.

APNs still confront barriers to direct reimbursement from managed care organizations that lack the knowledge and political will to challenge the traditional medical model. Across the country, nurse practitioners are deterred from being credentialed on provider panels. More research is needed to demonstrate the value to the health care delivery system, as well as the cost effectiveness, of health education, health promotion, and advanced nursing practice. Nursing education programs must prepare students at all levels for roles in case management and employment in the managed care environment.
7. Impact of Health Policy and Regulation

The impact of federal and state health policy and regulation on the practice of nursing cannot be ignored. Issues surrounding health care are often complex, involving the fields of medicine and economics, and affecting individuals’ rights as well as access to health care. Consumers are concerned about quality, and corporations and individual providers are concerned about economic survival.

Two major trends will have a significant impact on health care delivery. First, there will be an increase in state and federal regulation as costs rise and managed care continues to expand. Along with regulation, there will be attempts to shift to less expensive settings and apply market forces to restrain costs.

Second, shared responsibility for the Medicaid program and the shift to managed care has resulted in an increased oversight role for the states. States must define, measure, and assess quality, and serve as contractors for corporate entities while enforcing accountability of managed care organizations. Both new regulation and devolution have serious implications for health care delivery and the practice of nursing. Historically, nursing’s influence on policy and regulation has been disproportionately low relative to the breadth of nursing practice and its importance within the health care delivery system. Nursing schools, scholars, executives, and professional nursing organizations must more actively contribute to the development of health policy and regulation. Ethical issues involved in working in an integrated system constrained by economic incentives are being defined more and more by government policy makers, not health care professionals. Nursing leaders should contribute to the dialogue that defines these issues; students must be prepared for a meaningful role in the political arena.

8. The Growing Need for Interdisciplinary Education for Collaborative Practice

A wide range of knowledge and skills is required to effectively and efficiently manage the comprehensive needs of patients and populations. The health care delivery system of the future will rely on teams of nurses, nurse practitioners, physicians, dentists, social workers, pharmacists, and other providers to work together. While interdisciplinary and collaborative practice is still not the norm, there has been a heightened awareness of the need for coordinated care and a significant increase in the use of midlevel providers, such as APNs, as part of the primary care team.

With care management a critical component in health care delivery, nurses must demonstrate leadership and competence in interdisciplinary and collaborative practice for continuous quality improvement. Team-based, interdisciplinary approaches have been shown to be highly effective for improving clinical outcomes and reducing cost. Teaching methods that incorporate opportunities for interdisciplinary education and collaborative practice are required to prepare nurses for their unique professional role and to understand the role of other disciplines in the care of patients.

9. The Current Nursing Shortage/Opportunities for Lifelong Learning and Workforce Development

Nursing shortages have a negative impact on patient care and are costly to the health care industry. A significant nursing shortage exists today, particularly in acute and long-term care settings. It results from many factors. For example, nurses of the "baby boom" generation are
beginning to retire; women today have numerous career opportunities; and there is a lingering perception of nursing as a "trade," versus a "profession," which contributes to the lack of new individuals entering the field. As the age of entering students rises, the number of years of practice decreases, also affecting supply. While the number of male and minority students has been steadily rising, their ranks are still underrepresented.

The current shortage is judged to be deeper than past shortages and probably more resistant to short-term economic strategies that have worked before. However, as in the past, the current shortage will almost certainly raise salaries and increase flexibility for nurses. Other recent advances in the profession and the health care industry are likely to have a positive impact on recruitment. These include the opportunity to practice in a variety of clinical settings; the dramatic increase in opportunities for APNs; new careers in care management and case management; and the interest of biotechnology, information technology, and pharmaceutical companies in hiring skilled nursing professionals. Nursing education must partner with the health care industry to develop innovative short- and long-term solutions that address the nursing shortage, including aggressive student recruitment and the initiation of an intense media/marketing campaign. The public image of the nursing role must be revitalized to change outdated perceptions.

The need for more sophisticated nursing management and leadership to respond to the clinical, organizational, and fiscal challenges faced by the health care industry has not gone unrecognized. Nurse managers and executives require clinical experience and strong communication skills, as well as business acumen and knowledge of financial and personnel management, organizational theory, and negotiation. With the nursing labor budget constituting a significant proportion of total spending, and cost overruns, in acute care hospitals, long-term care facilities, and home care agencies, nursing management is too often found to be lacking in fundamental decision science and fiscal knowledge. A great need exists for educational support for experienced nurses to be developed into nurse executives, prepared to work competently alongside their business colleagues. Nursing schools are called on to expand their core and continuing education programs to address these needs.

Rapidly evolving technology, increasing clinical complexity in many patient care settings, advances in treatment, and the emergence of new diseases are all factors contributing to the increased need for a strong emphasis on critical thinking and lifelong learning among professional nurses. Further, new clinical roles, the need for managerial and executive talent, the imperative to retain nurses in active practice over longer careers, and the desire by practicing nurses to move up the economic ladder lead to the demand for continuing education and career mobility and development. Schools of nursing have many of the core resources needed to deliver continuing professional education and can provide appropriate courses efficiently and effectively. Affiliation with schools by nurses in active practice may lead to an increase in enrollment for advanced degrees. Health care and health-related organizations may serve as institutional partners in sponsoring such program offerings, which would contribute to their relevance, increase participation, and lower costs.

10. Significant Advances in Nursing Science and Research

Nursing research is an integral part of the scientific enterprise of improving the nation's health. The growing body of nursing research provides a scientific basis for patient care and should be regularly used by the nation's 2.5 million nurses. Most studies concern health behaviors, symptom management, and the improvement of patients' and families' experiences with illness, treatment, and disease prevention. Research is conducted to improve patient outcomes and promote the health and well-being of communities, especially of the most vulnerable populations.

Nursing research and scholarship has received significant funding by public and private agencies in the last decade and is increasingly recognized as an independent body of knowledge.
However, the challenges associated with advancing the research agenda in nursing are complex and varied. Schools of nursing are not sufficiently focused on the scholarship and science of nursing as top priorities, and, although graduate degrees in nursing have become more common, doctorally prepared nursing professionals are not being produced in large enough numbers to meet the growing need. In addition, there is a need for enhanced mentorship for new researchers to strengthen skills and capacity to conduct meaningful nursing research. Significant opportunities exist for schools of nursing, especially those affiliated with academic health centers, to address these challenges and enhance the research contributions of nursing scholars.

At the dawn of the 21st century and the long-awaited new millennium, nurse educators face a rapidly changing health care landscape, shifting student and patient demographics, an explosion of technology, and the globalization of health care, in addition to a myriad of everyday challenges. As we position ourselves to meet today's challenges and tomorrow's, we must understand the drivers affecting nursing. To quote Peter Drucker in Managing for the Future, "It is not necessary to be clairvoyant to know the future; it is only necessary to clearly interpret what has already happened and then project forward the likely consequences of those happenings" (Truman Talley Books, 1992).

About the Authors Barbara R. Heller, EdD, RN, FAAN, is dean and professor at the School of Nursing, University of Maryland, Baltimore. She is serving her second term as a member of the National League for Nursing Board of Governors. Marla T. Oros, MS, RN, is assistant dean for clinical practices and services, School of Nursing, University of Maryland. Jane Durney-Crowley, MHA, RN,.a member of the Board of Visitors, School of Nursing, University of Maryland, is Executive Vice President, Operations and Culture, Catholic Healthcare Partners, Cincinnati, Ohio.

Source
http://www.nln.org/nlnjournal/infotrends.htm