

# Work Force Challenges in the 21st Century: Implications for Healthcare and Nursing

*A Report from a  
National Invitational Conference  
for Executive Nursing Leadership  
in Academic Health Centers  
and Major Teaching Hospitals*



The Institute for  
Nursing Healthcare Leadership

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Implications for Healthcare and Nursing

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*April 2001  
Cambridge, Massachusetts*

Prepared by Corrigan/Kantz, Inc.  
Executive Editor, Joyce C. Clifford, PhD, RN, FAAN

 **The Institute for Nursing Healthcare Leadership**



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# Conference Speakers



## **Neal Hogan, PhD**

*Managing Director, The Advisory Board Company, Washington, DC*

■ An overview of work force issues in the healthcare industry. The view from the CEO's desk.



## **Thomas A. Kochan, PhD**

*George M. Bunker Professor of Work and Employment Relations, MIT Sloan School of Management, Institute for Work and Employment Research, Cambridge, MA*

■ Changes, challenges, and opportunities in developing new work environments and work incentives. How will societal and technological changes impact the way work is designed in the future?



## **Peter I. Buerhaus, PhD, RN, FAAN**

*Valere Potter Professor of Nursing, Senior Associate Dean for Research, Vanderbilt University, School of Nursing, Nashville, TN*

■ Expected near term developments in the nurse work force. Some implications for education, practice, and policy.



## **Richard A. Cooper, MD**

*Professor of Medicine and Health Policy; Director, Health Policy Institute, Medical College of Wisconsin, Milwaukee, WI*

■ The increasing prominence of the non-physician healthcare worker. Implications for the clinical disciplines.

## **Noreen M. Sugrue**

*Senior Research Associate, Nursing Institute, University of Illinois, Urbana-Champaign, IL*

■ Information on the upcoming report from the Commission on the Future of the Healthcare Labor Force in a Graying Society.



## **Steven E. Weinberger, MD**

*Executive Director, Carl J. Shapiro Institute for Education and Research, Professor of Medicine and Faculty Associate Dean for Medical Education, Harvard Medical School, Boston, MA*

■ Preparing to meet 21<sup>st</sup> century work force and healthcare environment challenges: a view from physicians.



## **William A. Gouveia, MS, FASHP**

*Director, Department of Pharmacy, New England Medical Center, Boston, MA*

■ Preparing to meet 21<sup>st</sup> century work force and healthcare environment challenges: a view from pharmacists.



## **Geraldine (Polly) Bednash, PhD, RN, FAAN**

*Executive Director, American Association of Colleges of Nursing*

■ Is nursing prepared for the challenges of the new work environment and the changes in other healthcare professions?



## **Karlene M. Kerfoot, PhD, RN, FAAN**

*Senior Vice President for Nursing and Patient Care Services and Chief Nurse Executive, Clarian Health System, Indianapolis, IN*

■ Can innovations be developed that integrate new work challenges and meet the needs of an integrated hospital and community delivery system?

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# Introduction

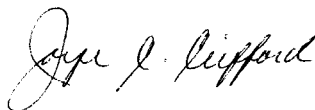
**O**n behalf of the Consortium of Harvard-Affiliated Nursing Services and The Institute for Nursing Healthcare Leadership, I am very pleased to present this report on the 2001 Invitational Conference, “*Work Force Challenges in the 21<sup>st</sup> Century: Implications for Healthcare and Nursing.*” We set out to provide a forum where thought leaders from nursing could partner with colleagues from a wide variety of arenas—including other clinical disciplines, health policy, education, and employee relations—to address the challenges that face the health professions in the coming decades. I think I speak for our presenters and participants alike when I say that the conference exceeded our expectations.

Our goal with this report is to provide a synthesis of the content that was presented at the meeting, including material prepared by the invited speakers and discussions that emanated from the audience. This task was simplified considerably when, early in the conference, it became evident that as all of our speakers addressed some aspect of work force issues related to healthcare, they were, in many important ways, speaking a common language. The same words emerged over and over: re-creating systems, building new partnerships and new coalitions, abandoning silos in education and practice, improving conditions for workers, supporting and nurturing breakthrough thinking. With these themes as starting points, the idea of an integrated report began to take shape.

We have chosen this route, rather than a more conventional presentation of individual papers, as a way to further one of our original goals—that this conference serve as a springboard for other similar, and perhaps more focused, activities related to work force issues and how they affect healthcare and nursing. While it was not possible for us to capture every important idea or comment that was shared during the conference, we hope that this report will help bring the analysis of work force issues related to healthcare to a new level.

This report was prepared by Corrigan/Kantz Consulting, Inc, and was based on tapes, transcripts, and written material from the conference. Speakers had an opportunity to review the manuscript prior to publication and to provide input into how their work and comments were characterized. Readers interested in obtaining more complete data or supporting materials related to the content presented here are encouraged to contact conference speakers directly (listed on the opposite page).

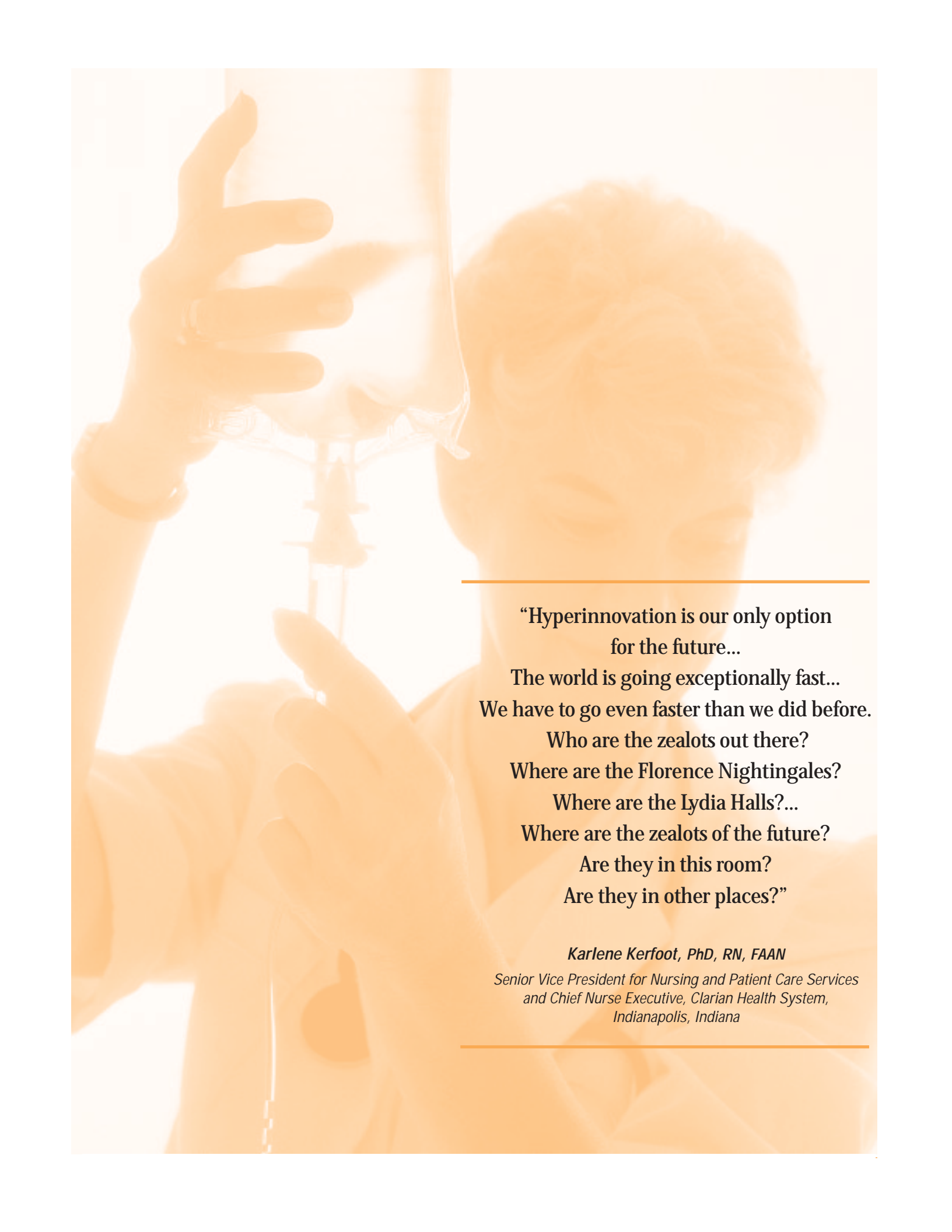
We hope you enjoy reading this important work.



Joyce C. Clifford, PhD, RN, FAAN  
Executive Director  
The Institute for Nursing Healthcare Leadership



*Joyce C. Clifford,  
PhD, RN, FAAN,  
welcomes  
participants to the  
conference.*



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**“Hyperinnovation is our only option  
for the future...**

**The world is going exceptionally fast...  
We have to go even faster than we did before.**

**Who are the zealots out there?**

**Where are the Florence Nightingales?**

**Where are the Lydia Halls?...**

**Where are the zealots of the future?**

**Are they in this room?**

**Are they in other places?”**

***Karlene Kerfoot, PhD, RN, FAAN***

*Senior Vice President for Nursing and Patient Care Services  
and Chief Nurse Executive, Clarian Health System,  
Indianapolis, Indiana*

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# Toward a New Way of Working

# 1

The discussion about the future challenges facing the health professions began with a consideration of broader economic and work force issues. A number of speakers outlined societal and economic changes that are affecting labor markets as a whole, and that have particular implications for healthcare.

## The Changing Work Force

The landscape of work has undergone tremendous change in the last decades. Organizations of every kind—high tech industries, service organizations, durable goods industries, government agencies—have had to cope with changes in the composition of the work force and in what is meant by “work.” Yet it has become increasingly apparent that the organizations and systems that support the work environments and workers themselves have not kept pace. Across the board, industries are operating on old assumptions and old notions of work. In fact, says Thomas Kochan, PhD, George M. Bunker Professor of Work and Employment Relations at MIT’s Sloan School of Management, the social contract guiding work—or “the expectations and obligations that workers, employers, and their communities and societies have for work and employment relationships”—has broken down and must be re-drawn.



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**“The social contract guiding work...has broken down and must be re-drawn.”**

*Thomas Kochan, PhD*

### *Prevailing Assumptions Are Outdated*

Too many of the institutions and policies guiding work are still modeled on assumptions and conditions prevalent in the 1930s. During the New Deal era, the typical employer was a large firm competing in a predominantly domestic economy. The typical worker was a man with a wife and family at home who began to work for a company full time right after high school, staying on the payroll until retirement. There was an implicit understanding between worker and employer that good performance would yield long-term employment security and an earnings profile that rose with age and tenure. Collective bargaining and new organizational structures in the work place provided employees with rising wages, improved benefits, and better working conditions.

### *Changes at the End of the Twentieth Century*

The economic and social changes of the last twenty-five years threw many aspects of this arrangement out of balance. In fact, the changes have been so dramatic that, Kochan asserts, anyone entering the labor force today would not recognize the social contract just described. For example:

- The emergence of **new computer, communications, and other technologies** spawned businesses that called for new kinds of skills in the labor force and changed production processes and the organization of work.



*Conference participants listen to speaker.*

- 
- **Multiple forms of employment** became possible (traditional, contract, etc.) that gave employers and employees new options and forced new ways of relating. In many cases, technology obliterated the walls that formerly defined the work place, and increasing numbers of workers chose to work from home or from other off-site locations.
  - **Women entered the work force in record numbers**, breaking down old barriers between work and family. In many cases this meant that a family had a second wage-earner to augment family income. At the same time, however, families of all types faced new challenges as they struggled to simultaneously manage jobs outside and inside the home and give each sufficient time and attention.

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Union and professional organizations that traditionally provided a structure for employers and employees to work effectively together have not altered their operating assumptions to accommodate the modern notion of work.

- While earnings increased overall, **wages for those in the middle and bottom percentiles of earners stagnated or declined** and earnings inequalities between the highest and lowest levels of earnings increased.
- As companies moved into **global markets**, competition and pressure to improve productivity and product quality increased.
- **Pension and health insurance benefits leveled off or declined** in contrast to the expansion in stable, comprehensive benefits that had been seen earlier in the century.
- Job security and tenure gave way to **uncertainty and insecurity** at all levels and all ages—with a new expectation on the part of employers and employees alike that working relationships need not be long term.

### *Union Influence Declines*

In the midst of this sea change in the American work place, the institutions and policies that for decades had formed the underpinnings of the employer/employee relationship—the organizations that helped create and define the social contract of work—have changed little. Unions and professional organizations that traditionally provided a structure for employers and employees to work effectively together have not altered their operating assumptions to accommodate the modern notions of work. This lack of evolution, notes Kochan, may be partly responsible for the stagnation of wages and benefits that have been described, for the difficulties workers face as they struggle to balance work, family, and social responsibilities, and for the frustrations they encounter as they look for roadmaps on a career path that is punctuated by frequent changes in employment and a need for lifelong learning.

### *Positive Changes in the 1990s*

However, the dramatic changes in the work place have not all been negative, asserts Kochan, and positive changes that began in the 1990s bear noting. Innovations in how work is organized have been designed and tested successfully in many pockets of industry and are spreading gradually to more and more work sites. The premium on education has increased, and knowledge workers are doing well in today's labor markets. Some companies have developed strong labor-management partnerships that help them adapt to rapidly changing circumstances; others have created flexible employment arrangements and practices that help workers better integrate and accommodate work and family responsibilities.

## Impact of a Changing Demographic

These changes and innovations in the work place are occurring just as a major social change is brewing. In the United States, notes Noreen Sugrue, Senior Research Associate at the Nursing Institute of the University of Illinois at Urbana-Champaign, we are just beginning to experience a rapid aging of society that will accelerate over the next decades. For example, in 2000, 13% of the population, or 35 million people, were 65 or older. By 2030, the percent of the population over 65 will grow to 20% and will encompass 70 million individuals. At the same time, the segment of the population between 18 and 64 years of age—or that portion of the population that has traditionally been this country's primary workforce—will decrease by 6%.

These population shifts mean that in 2010 there will be about 4.5 people age 18-64 for every person age 65 and over; by 2040, the ratio will be about 2.5:1. The implications of these changes for the economy and for individuals are substantial, says Sugrue. The available pool of workers, which will be severely diminished, will be challenged as never before to find ways to balance the demands of the work place, home, and community. And, as workers struggle to support aging family members, the impact on productivity could well be profound.

## Impact of Work Place Changes on the Healthcare Industry

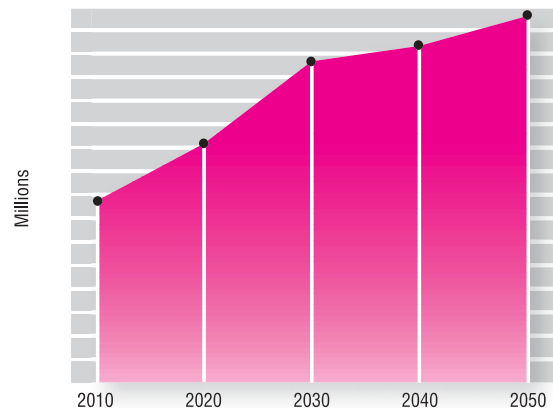
In the last few decades, the healthcare industry has played an increasingly important role as a major employer of Americans. As noted by Richard A. Cooper, MD, Professor of Medicine and Policy, and Director of the Health Policy Institute at the Medical College of Wisconsin, data from the Bureau of Labor Statistics show that the percentage of workers employed in the healthcare industry has risen steadily since the mid twentieth century, currently accounting for about 6% of the total work force.

As an employer, the healthcare industry is a player in the changing landscape described above. However, healthcare is also unique in ways that bear careful scrutiny.

Healthcare, notes Kochan, has been an industry marked by innovation, and in some areas has served to demonstrate how an industry can effectively adapt and evolve to meet the demands of the new world.

For example, healthcare has been quick to develop and adopt emerging technologies. New equipment and techniques have allowed surgeries that once required days in the hospital and intensive post-operative care to move safely to the outpatient setting. New imaging devices and other technologies have increased the

Number of People Aged 65 or Older (in millions)



Between 2010 and 2050, the number of people aged 65 or older will significantly increase. This increase represents a fundamental demographic change for the United States.

Number of People Aged 18 to 64 for Each Person Aged 65 or Older (Selected years 2010 to 2050)



Between 2010 and 2040 there will be a steady decline in the proportion of people aged 18 to 64 relative to those aged 65 or older. (Source: U.S. Census Bureau, Statistical Abstract of the United States, 1999. Charts adapted from slides used by Noreen Sugrue. Used with permission.)

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efficiency and accuracy of the diagnostic process. Healthcare institutions in many areas have modeled flexibility in work hours, allowing workers to more effectively integrate work and family, and have readily accommodated workers who opt to move in and out of the work force. Health professions, by mandating continuing education and developing mechanisms that ensure its availability, have demonstrated ways to ensure that learning is ongoing and lifelong. Kochan surmised, “Your profession is closer to realizing these [work place innovations] because you have a tradition of continuing education...You have a tradition of people moving out of the labor force, you have a tradition of people who have moved across organizations over time.”

At the same time, healthcare faces significant and unique challenges that affect the viability of healthcare organizations themselves and, thus, the status of those they employ. Over the past decade, hospitals have experienced significant financial pressures. As Neal Hogan, PhD, Managing Director of The Advisory Board Company noted, between 1995 and 1999, median operating margins in US hospitals declined from 3.25% to a mere 0.51%, and the median debt-to-cash flow ratio increased from

3.50 to 4.07. Among the hospitals hardest hit, noted Steven Weinberger, MD, Executive Director of the Carl J. Shapiro Institute for Education and Research and Professor of Medicine at Harvard Medical School, are academic health centers. Due to the Balanced Budget Act of 1997, academic centers are facing deep cuts in direct and indirect medical education funds from Medicare. This hit, on top of shrinking margins, has caused academic centers across the country to examine whether and how they can continue to support the education of future physicians while still providing cutting-edge healthcare services.

As operating margins have declined, healthcare organizations have restructured and have slashed fixed costs. Many are now looking at growth as the way to increase their revenue base and spread the fixed costs that remain. Organizations that have grown fastest, says Hogan, have focused on increasing their inpatient volume in targeted areas that are known to yield a high margin—often at the expense of other providers in their market. Studies done by The Advisory Board Company show that the “fast growers” have been rewarded with margins as high as 5.26%. The “fast growers” have also worked aggressively to preserve their reimbursement rates, while counterparts in slower growing organizations have been forced to accept declines.

As they focus on survival, all healthcare organizations are struggling to find ways to break the productivity barrier without unduly increasing the toll on employees. At the same time, they are looking with grave concern at the shrinking labor force. “Fundamentally,” said Hogan, “what you get in the hospital is nursing care...Can we somehow re-manage that productivity? I think we are going to figure it out because we have to. If we don’t increase the productivity of the people in hospitals, everyone is going to leave and go work...in other institutions where they can make more money. A

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**“Fundamentally, what you get in the hospital is nursing care... Can we somehow re-manage that productivity? ...If we don’t increase the productivity of the people in hospitals, everyone is going to leave and go work... in other institutions where they can make more money.”**

*Neal Hogan, PhD*



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**“I have experienced a disconnect between the macropolicies and some of the results that we’re seeing...and having people only in casual, part-time, temporary employment, moving from one place to the other...That is actually damaging in terms of continuity of care for patients.”**

*Doris Grinspun, RN, MSN,  
Executive Director,  
Registered Nurses  
Association of Ontario*

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lot of hospitals have already experienced this...It's very much on people's minds—how do we crack the productivity barrier?"

Conference participant Doris Grinspun, RN, MSN, Executive Director of the Registered Nurses Association of Ontario, added that some of the work force changes that have been described may be at odds with certain basic principles of quality healthcare. Commenting on the increasingly flexible nature of employment relationships that are now also being seen in healthcare, she notes, "I have experienced a disconnect between the macropolicies and some of the results that we're seeing...and having people only in casual, part-time, temporary employment, moving from one place to the other...That is actually damaging in terms of continuity of care for patients."

### Section Summary

As a society, we are experiencing major changes in the technologies and behaviors that define our work and work environments. Healthcare, a major industry in today's economy, has felt many of the same pressures as other organizations to update the assumptions and structures that define the work place and the relationship between the worker and employer. At the same time, the healthcare industry's product and method of funding create some special challenges. During the conference, we had a chance to explore broad work place issues and those unique to healthcare environments.

In the next section, we examine some of the challenges facing clinicians from various disciplines as they prepare their ranks to provide care in the decades to come.

# 2

## Challenges Facing the Health Professions

The changes in the work force in general, and in the healthcare industry in particular, have had an impact on every profession in healthcare, and in particular on the practice and education of the clinical disciplines. Technological innovation has dramatically altered the way many patients are diagnosed and treated, and has revolutionized our systems of care. Labor issues preoccupy many of the professions and, if labor projections hold true, will continue to do so in the coming decades. Changes in the mix of healthcare providers, including the burgeoning numbers of primary care practitioners who are not physicians, add another dimension to the challenges that all disciplines now face.

Representatives of three clinical disciplines—medicine, pharmacy, and nursing—spoke at the conference. As they examined the issues facing each profession individually, it became clear that while differences exist, they are far outweighed by the challenges the disciplines have in common. Representatives for each of the disciplines discussed challenges associated with:

- Changes in clinical practice,
- Changes in the education of practitioners, and
- Projections for the future supply of healthcare professionals.

### Changes in Clinical Practice

Healthcare practitioners at the start of the 21st century enter a practice environment that is vastly different from that encountered by their counterparts even two decades ago. Consider the following trends.

#### *Less Time Available for Patients*

Clinicians in every discipline are bemoaning the lack of time now available to spend with patients. Physicians face pressure to increase productivity, which translates to decreased time spent with each patient. “Drive-through” surgery and short lengths of stay in the inpatient setting have become routine, decreasing the opportunity for nurses and doctors to get to know patients. Changes in reimbursement methods have meant increasing amounts of documentation and paperwork for all disciplines, resulting, again, in time taken away from patients and families. And a hidden cost

associated with all of these activities that take clinicians away from patients, and one of the most troubling, is that providers become discouraged as they struggle to reconcile the competing demands and incentives created by the care needs of patients on the one hand, and the financial needs of their organizations on the other.

#### *Increase in Acuity and Pace of Care*

As hospitals struggle to increase productivity and salvage margins, clinicians in every discipline are feeling the strain. Physicians and nurses in the inpatient setting admit and discharge patients at a rate unheard of in years past. Pharmacists, under pressure brought on by the acuity of care and by the explosion in new drug development in recent years,

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“There’s no extra time...  
The time that used to be  
available for patients to be  
sitting down with a medical  
student, intern or resident...  
that time is no longer there.”

*Steven Weinberger, MD*

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struggle to maintain quality as they help manage an increasing volume of intense and complex medication regimens in hospitals. William Gouveia, MS, FASHP, Director of Pharmacy at New England Medical Center, estimated that about 20,000 medication orders are written each day on each inpatient service at five Boston hospitals, and even more are written in their outpatient settings. Further, he reports that the number of prescriptions filled per year by the average community pharmacist has soared from a little more than 17,000 in 1992 to close to 23,000 in 1999. Clinicians of every ilk are looking for ways, as Hogan described, to “break the productivity barrier” in order to function in an increasingly demanding environment.

### ***Shifting Role Responsibilities***

Shifting role responsibilities in healthcare have given patients more options in their choice of care providers, and have also brought challenges to clinicians vis-à-vis professional collaboration. Whereas the physician used to be viewed without question as the holder of accountability with regard to most aspects of healthcare, there is now a universe of clinicians who, at least under some circumstances, assume principal responsibility for the care of the patient. This universe now includes: nurse practitioners, certified nurse midwives, physician assistants, nurse anesthetists, acupuncturists, podiatrists, chiropractors, naturopaths, optometrists, and clinical nurse specialists. This is not, notes Richard A. Cooper, an exhaustive list, and other practitioners, including pharmacists, are sure to join these growing ranks in the coming decades. And, while favorable outcomes have been demonstrated among patients receiving care by some of these clinicians, studies examining outcomes among the full range of non-physician providers are limited. In addition, the demarcation between the role of physicians and other practitioners is often unclear, creating an ambiguity for patients and providers that can result in confusion—or worse—in the process of care.



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**“We’ve given our staff lousy systems that are almost dysfunctional and we expect them—for 100,00 doses a day in Boston alone—to give the right drug to the right patient at the right time.”**

*William Gouveia, MS, FASHP*

### ***Mandate to Ensure Safety***

The continued emergence of new technologies, the rapid rise in the number of new pharmaceuticals, and the fast pace in nearly all healthcare settings have resulted in a new emphasis on safety—the safety of patients and the safety of staff who are asked to work harder than ever before. Rather than placing the blame for lapses in safety on individual clinicians, healthcare organizations are now confronting the reality that unless they develop new ways of doing their work, errors will result. As a result, systems to ensure safe medication practices are being developed and tested as part of a new national focus on medication safety. And the adverse effects of work place practices that require staff to put in long hours are being examined by hospitals across the country.

Commenting on the safety issues faced by hospital pharmacists, and calling for new forms of dialogue between professionals to solve medication safety issues, Gouveia observed, “We’ve given our staff lousy systems that are almost dysfunctional and we expect them—for 100,00 doses a day in Boston alone—to give the right drug to the right patient at the right time.”

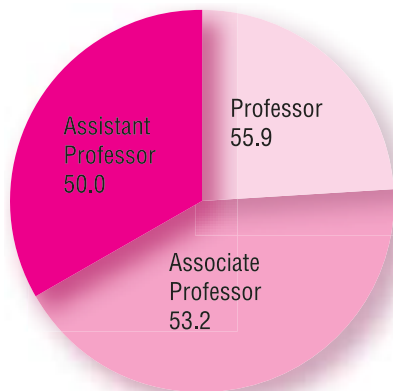
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## Changes in the Education of Healthcare Professionals

The impact of societal and economic changes on the education of healthcare practitioners emerged as a common theme at the conference.

Weinberger noted that the revolutionary changes in healthcare are calling for an entirely new

Mean Age of Full-Time Doctorally Prepared Nurse Faculty by Rank



Source: American Association of Colleges of Nursing, Institutional Data Systems, 2000  
Linda E. Berlin, DrPH, RNC, Director of Research and Data Services and Janis Stennett, MPA, Data Manager  
American Association of Colleges of Nursing © 2001.  
Used with permission.

paradigm in how physicians are trained and socialized as healthcare practitioners and mentors. He noted that the current structure of medical education is based on a 1910 report by Abraham Flexner that called for an end to informal, private medical education, and the move to university-based education for all physicians. In addition, Flexner recommended that faculty be engaged in original research and that students engage in active learning through participation in laboratory and clinical activities. These principles set the tone for how medical education proceeded in the twentieth century and crafted the “three-legged stool” of medical education—clinical care, research, and education—that exists today. As university-affiliated academic health centers took on these roles, significant funding was provided by Medicare, which saw support for medical education as a way to ensure the highest quality of care for its beneficiaries.

The Balanced Budget Act of 1997 slashed many of the federal funds earmarked for medical education. Academic health centers, already struggling to maintain positive operating margins, began to find they had insufficient revenues to operate as they had in years past, helping to set the stage for the difficulties in medical

education that we are seeing today. As faculty are handed profit and loss statements to justify their salaries, they are forced to spend more time on “billable hours,” leaving precious little time for clinical teaching. This, on top of a system that brings patients in and out of the hospital in record time, means that the clinical teaching that used to occur as a routine part of clinical care in academic health centers is now in jeopardy. Noted Weinberger, “The Flexner report was the first revolution. The second revolution is now challenging and disrupting our programs in medical education. What we don’t know is where things are going to land. We have to redesign the system.”

The turmoil occurring in nursing education is no less daunting. Declining enrollments, the aging of nursing faculty, and the continuing debate over the entry level degree for new practitioners leave many schools of nursing worried over their long-term survival. Between 1996 and 2000, the number of students in generic baccalaureate nursing programs decreased by 3,010 students per year on average. At the same time, reported Geraldine (Polly) Bednash, PhD, RN, FAAN, Executive Director of the American Association of Colleges of Nursing (AACN), the age of faculty in baccalaureate programs has increased and faculty positions are increasingly difficult to fill. The AACN reports that the mean age of doctorally prepared nurse faculty who hold the rank of full professor is now 55.9 years. In addition, respondents to a recent AACN survey reported that 300 faculty positions are now vacant. Actual vacancies (vs. those reported by survey respondents) are even higher. In fact, faculty shortages are so significant that some schools of nursing have cited them as a reason for not accepting all



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**“I’m bright, I have a future. I want to enter a community of intellectuals. Nursing is not a community of intellectuals.”**

*High School Student*

high school counselors were sending their students anywhere but nursing. And one student said, ‘I’m bright, I have a future. I want to enter a community of intellectuals. Nursing is not a community of intellectuals.’”

Moreover, Bednash continued, “The public is confused about who we are and what it means to be called a nurse.” Perhaps, she suggests, the public confusion reflects confusion within the profession. In particular, nursing as a profession is still unclear about what is appropriate preparation for entry into practice, and about whether and how to recognize and reward individuals who have achieved a higher level of education.

At the same time that nursing education programs are seeing declining enrollments and medical schools are struggling with how best to educate students, enrollment in schools that prepare many of the so-called “non-physician clinicians” has risen steadily. Most dramatic, noted Richard Cooper, has been the increase in nurse practitioners (NP), as enrollment in NP programs increased from fewer than 4,000 students in 1992 to more than 20,000 in 1997. During the same period, graduates from Physician Assistant programs doubled, reaching 2,800 in 1997, and the numbers of students graduating from chiropractic colleges, schools of acupuncture, and certified registered nurse anesthetist programs also increased.

Recognizing the increasing complexity and specialization of the pharmacist’s role, the education of pharmacists has changed as well. Entry into the profession now requires completion of a Doctor of Pharmacy rather than a Bachelor of Science degree. While significant benefits—particularly for patients—are likely because of this change in educational requirements, it also means that it now takes longer to prepare new pharmacists to enter the profession, resulting in a longer lag time for the profession to correct imbalances between supply and demand.

qualified applicants.

Negative perceptions about nursing, Bednash asserted, is a significant factor driving declining nursing enrollments. As evidence, she cited results from focus groups, conducted by JW Thompson Company, of students in grades two through ten. The students were asked age-specific questions about career aspirations. Bednash reports, “What they found should give us great pause...These students, in the words of the researchers, had been literally drilled on what was good about becoming a doctor. They had virtually no positive talk about nursing. For older students, nursing was visualized as ‘technical’ as opposed to ‘professional.’ One student noted, ‘I go to a private school and I think they expect more from us. I think nursing is more like shop.’” Bednash went on to cite results from a series of hearings conducted by the

Association of Colleges of Nursing in which deans, faculty, and community leaders were asked about what could be done to increase enrollment in baccalaureate nursing programs. She reports, “We were told consistently that



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**“The public is confused about who we are and what it means to be called a nurse.”**

*Polly Bednash, PhD, RN, FAAN*

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## Labor Projections Related to Healthcare

All three of the clinical disciplines discussed at the conference—medicine, pharmacy, and nursing—are facing issues regarding supply and demand of needed practitioners.

In a discussion on the role of non-physician clinicians, Cooper pointed out that a significant percentage of non-physician professionals practice in the primary care arena. Since the number of these non-physician professionals and primary care physicians have both grown in the past decade, we are beginning to encounter a surplus of primary care providers. However, demand for specialty services is increasing faster than demand for primary care, and at a rate that exceeds supply. As a result, a mismatch between services needed and services available may be encountered in the coming decades.

Gouveia reported how the changes in the practice of pharmacists are impacting overall supply. Third-party payment for outpatient prescriptions has grown substantially, resulting in a sharp increase in the time pharmacists must spend on administrative, payment-related issues. At the same time, the increased complexity of medication therapy has generated a greater need for pharmacists in hospitals and other health care settings. Although the supply of pharmacists is expected to increase over the next decade, the rate of growth will be smaller than in the previous decade and the number of available pharmacists will likely be insufficient to meet the increased demand. Reasons for the slowed rate of growth are several and include a decline in the number of pharmacy graduates during the 1990s and an increase in the number of pharmacists seeking part-time, rather than full-time, employment.

## The Special Case of the Nursing Work Force

The dramatic changes in healthcare delivery have combined with a number of factors to create unique challenges for the nursing work force. The expanding career choices for young people, especially young women, and the changing demographic of the current nursing work force are having an impact on the profession of nursing that is still evolving. If current projections hold true, one result will be an unprecedented shortage of nursing care providers.

Assuming entry into the nursing profession continues at the current rate, says Peter Buerhaus, PhD, RN, FAAN, Senior Associate Dean for Research at the Vanderbilt University School of Nursing, the demand for nurses in 2020 (based on demand estimates by the Health Resources and Services Administration) will outstrip supply by more than 400,000 RNs. The shortage, explained Buerhaus, is best understood as part of a larger picture of an aging RN work force.

Demographic, social, and educational forces all play a role in explaining the aging of the RN work force, says Buerhaus. And since more than 90% of working RNs are women, changes in the opportunities, roles, and expectations for women in society have had a particularly strong impact on nursing.

During the 1960s and 1970s, schools of nursing were filled with women who were born in the 1950s and who generally chose nursing from among a very limited number of career options. In the 1980s, the number of college-age women declined overall and, at the same time, career opportunities for women expanded dramatically. As a result, the number of women choosing nursing as a career plummeted. At the same time, Associate Degree (AD) programs in nursing expanded, attracting women in their mid-to-late 30s who were interested in a second career.

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As fewer young women entered nursing, and more women in their 30s graduated from AD programs, the average age of working RNs began to rise. Between 1983 and 1998, the average age of RNs in the work force increased by four-and-a-half years (from 37.4 to 41.9), and the number of working nurses younger than 30 years decreased by 41%. At the same time, the average age of the US workforce as a whole increased by less than two years (from 37.4 to 39 years), and the total labor force in the US younger than 30 decreased by less than 1%.

It is expected that by 2010, said Buerhaus, the RN work force will age by another 3.5 years and more than 40% of working RNs will be over the age of 50. Even more significantly, large numbers of RNs will start to retire which will lead to a decline in the number of working RNs overall and a significant RN shortfall. And this will occur at the same time as 78 million baby boomers begin to reach retirement age, meaning the demand for health services will soar.

Ironically, the upcoming nursing shortage looms just as we have begun to more definitively document the relationship between the availability of nurses and the quality of hospital care. In a recent study, Jack Needleman, PhD, of Harvard University and Buerhaus examined the relationship between nurse staffing and patient outcomes in hospitals. In reporting the study findings at the conference, Buerhaus noted that strong and consistent relationships were found between higher nurse staffing and lower rates of five patient outcomes in medical patients (urinary tract infections, pneumonia, length of stay, upper gastrointestinal bleeding, and shock), and between higher nurse staffing and lower rates of failure to rescue in surgical patients. Buerhaus called for additional studies to further document the impact of nursing care on patient outcomes, particularly as healthcare systems continue to change in the coming decades.



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### ***Section Summary***

As the conference proceeded, it became increasingly clear that changes in the larger healthcare system and challenges facing each clinical discipline are intertwined. It was also apparent that while each profession has its own unique set of challenges, many are shared across the professions, and the approaches used by one discipline may illuminate choices and approaches useful to another. Just as the clinical disciplines collaborate with and learn from one another when taking care of patients, collaborating and learning from one another may be a sound approach to dealing with some of the thorny issues of professional development.

# 3

## New Directions

As the conference progressed, a number of themes relating to future directions emerged. Repeatedly, speakers cited the need to reexamine relationships between employees and the work place, to abandon existing silos and work on building new partnerships and coalitions, and to reinvent old systems and think creatively about strategies for the future. Speakers repeatedly cited the knowledge and talent that resided in the audience, and challenged conference participants to demonstrate leadership in working toward innovative solutions.

### Start Small, But Start

Kochan first voiced this sentiment in the early part of the conference, maintaining that it would not be productive to wait for sweeping changes in public policy before taking some action on behalf of workers. Rather, innovation and experimentation should begin soon at the local level—in each industry and in each organization—and must engage the full set of stakeholders. Karlene Kerfoot, PhD, RN, Senior Vice President for Nursing and Patient Care at Clarian Health System, talked about creating “incubators” and “idea labs”—dedicated time and space, supported by research and development dollars, for new ideas in healthcare. And while Bednash asserted that academic health centers have traditionally been seen as the “powerhouse and intellectual capital resource for the clinical disciplines,” Kerfoot pointed out that leaders in these settings must not miss the lessons that can be learned from smaller organizations that can often do the work much faster. “They can turn on a dime and get things going,” she noted.

Bednash described the “circle of inaction” that has existed for years between stakeholders in

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**“Employers assert their inability to differentiate roles, given that graduates of these [baccalaureate and associate degree] programs hold the same license. State boards assert equally they are unable to develop different licensure systems because employers do not differentiate. And so we have this circle of inaction, with each side looking at the other and saying, ‘You do it.’ The circular arguments leave us in a moribund state of inaction.”**

*Polly Bednash, PhD, RN, FAAN*

nursing practice and regulatory agencies, with subsequent failure to resolve critical issues of entry level and differentiated practice. Calling on members of the audience to be catalysts for change in this regard, she reports, “Employers assert their inability to differentiate roles, given that graduates of these [baccalaureate and associate degree] programs hold the same license. State boards assert equally they are unable to develop different licensure systems because employers do not differentiate. And so we have this circle of inaction, with each side looking at the other and saying, ‘You do it.’ The circular arguments leave us in a moribund state of inaction.”

### Improve Conditions in the Work Place

There is a critical need, said Kochan, to find ways to integrate work, family, and civic roles. In a world where technology allows us to bring our work home, and where the nature of work and the demands of consumers require more of us to be “on call” all the time, Kochan noted, there is often no division between work, family, and community. Kerfoot concurred, noting that work place practices that demand excessive hours of employees not only compromise the work/family relationship, but also jeopardize the safety of patients and staff. Too little attention

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**“...There’s an elephant on the side of the room...which is the issue of the work place conditions —mandatory overtime and short staffing—and how that contributes to the existing shortages... We have to do something to improve the work place conditions.”**

**Libbie Buchele**

Senior Policy Analyst

Service Employees International Union

is paid to safety issues and injuries—emotional as well as physical—that nurses face. She went on to refer to the poet White who talked about workers who don’t feel safe bringing their souls to work. She shares, “If we bring our soul to work, then it gets battered, abused. It’s not a place for our soul to grow.” She challenges nursing leaders to find ways to meet nurses’ psychological needs for safety and to help nurses maintain an emotional connection to their work.

Speakers and participants alike spoke to the pressing need to improve the work environment in hospitals. There was a sense of urgency about this for nurses in particular, as different speakers noted the need to reexamine work environments in health care and to determine how to make them more attractive to nurses at different stages of their lives and professional careers. Participant Libbie Buchele, Senior Policy Analyst at the Service Employees International Union, shared, “I’ve been

feeling like there’s an elephant on the side of the room...which is the issue of the workplace conditions —mandatory overtime and short staffing—and how that contributes to the existing shortages...We have to do something to improve the workplace conditions.”

## Provide an Effective Voice for Employers and Employees

In industry today, Kochan noted, union representation has fallen to unprecedented levels. He called on organizations to reexamine how they include their workers in both day-to-day and long-term strategic decisions. He pointed out that the notion of separating who does the work and who manages has become obsolete.

New structures, he went on, are needed to ensure that workers’ interests regarding economic security, productivity, dignity, voice, and family and community responsibilities are represented in the work place. He called on leaders to craft a “next generation” of unions and/or professional associations that would cross the traditional boundaries of individual firms or bargaining units. He notes, “The next generation unions or associations would look very different, because they would be representing people even if they’re not employed under a collective bargaining agreement. They would be representing people by providing links to where the job opportunities are, and where the work demands are. They would be providing information about the quality of care, opportunities for people to get skill certifications in different areas, and links to educational institutions on a lifelong basis so that people could move back and forth between work, education, and family responsibilities.”



*There is a critical need to find ways to integrate work, family, and civic roles.*

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## Use Technology Wisely

Many speakers highlighted the opportunities for innovation offered by technology. As a case in point, Kerfoot cited an ongoing experiment involving the town of Winona, Minnesota and the Cerner Corporation. Through this unique partnership, an integrated health information system linking citizens, schools, and healthcare providers is being created. However, cautioned Kochan, “Technology



*Can technology help solve productivity problems in healthcare?*

is only useful when, as our Japanese colleagues emphasize, you organize work so that the people can give wisdom to those machines.” Adding to Kochan’s words of caution, Noreen Sugrue noted that while technology offers significant benefits, it can have only minimal impact on some of the most basic components of the work of healthcare. Commenting on the long-term nursing care shortage, she says, “This is one thing technology isn’t going to fix. You’re not going to have technology to give people a bath, to help people with daily living. It’s human capital that we need, and to focus on technology for this particular problem is, I think, missing the boat.”

But Kochan asserts that, even given its limitations, technological advances can be used to solve some of the productivity problems in healthcare. He notes, “There’s no question that we can use technology sensibly, and that there are a lot of technological changes hitting the service industry...If we use technology sensibly and creatively, I think we can increase productivity.”

## Build Coalitions

Nearly every speaker talked about the need to build new coalitions to solve the work place issues in healthcare, to learn to dialogue with all the stakeholders in a work place or profession.

Kochan described cultural factors in United States industries that prevent them from building these coalitions, noting, “We guard the autonomy of every individual employer. There’s a tradition that, left to its own devices...the individual firm will find its own solution. And we are afraid to bring firms and organizations together...Yet, in a world where people are moving across organizations more frequently, we have to build cross-organizational institutions and networks.” Kerfoot concurred, citing the need for “breakthrough thinking” that comes when one partners with other stakeholders in new ways. She notes, “It is not for us to learn from ourselves, it is also for us to learn from other countries, it is for us to learn from other professions, it is for us to learn from some of the craziest places you’d ever think of, because we don’t have the answers if we just sit around and talk to ourselves. We do in fact need to talk to others who may have had some of the thoughts that we’ve had. And of course when that happens, then that really does take us to the level of breakthrough thinking.” Kerfoot also pointed out the potential benefits of working in the new corporate networks that are now part of the healthcare landscape. She pointed out the opportunities for benchmarking, for providing integrated care across a network, and improving quality by implementing evidence-based practice.

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*Karlene Kerfoot, PhD, RN, FAAN*

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On a related note, Kerfoot urged nursing executives to continue to work to ensure they have a voice at the highest levels of leadership in these new networks. She asks, “What are the models of nursing in the integrated networks? We don’t have a ‘chief patient care officer’ in many of the integrated networks. And so, consequently, we are worming our way up there just like we did in hospital administration...The business is patients and patient care and of course you have to have patient care at the top level of an integrated network or you’re not doing the kinds of things that you have to do.”

Cooper spoke of the opportunities for collaboration that are now possible among different types of providers. Sugrue warned the audience that the coming crisis in caring is not only about RNs, it is about all levels of care providers and is related to the changing demographics in our country. She cautions that the stakeholders are really across all of society and that solutions will be found only insofar as they are part of broader public policy initiatives. Gouveia talked about the urgent need for collaboration in order to ensure safe medication practices in hospitals. And Kerfoot, Bednash, and Gouveia each alluded to the exciting possibilities of future collaboration in the education and training of nurses, doctors, and others.

Dismantling our ‘silos’—in work place practices as well as in clinical practice and education—emerged as a mandate for the future.

## Update the Education of Health Professionals

In medicine, noted Weinberger, work to revamp the education of physicians has already begun. Recognizing the shift to ambulatory care, academic health centers and medical schools have begun to move a greater percentage of clinical instruction to the ambulatory setting. They have begun to examine the time constraints faced by faculty physicians, and to analyze the incentives (or lack thereof) available to physicians who assume teaching responsibilities. At the same time, organizations such as the Carl J. Shapiro Institute for Education and Research at Harvard Medical School and Beth Israel Deaconess Medical Center have begun to design programs that will help doctors learn to become better teachers, and are sponsoring efforts to design and test innovations in medical education. Weinberger reported that The Shapiro Institute and the Association of American Medical Colleges (AAMC) would be co-sponsors for a spring 2001 conference entitled, “The Millennium Conference on the Clinical Education of Medical Students,” at which many of these issues would be discussed. (Proceedings will soon be available in published form.)

The recent adoption of the Doctor of Pharmacy as the degree required for entry into the pharmacy profession is among the most dramatic of recent changes in the education of health professionals and, says William Gouveia, reflects a hard-fought battle. Far from complete, the profession is now examining how to ensure continuing education for practitioners at all levels—from pharmacist technicians to pharmacist clinicians—so that work redesign can proceed and individuals at each level are trained effectively and have the competencies they need in their practice.

Nursing education, too, faces unique challenges. The problems of the shortage and the aging of nursing faculty outlined by Polly Bednash demand that schools of nursing examine the faculty role and the incentives and structures that attract nursing professionals to faculty positions. Equally pressing is the fragile state of funding that exists in many schools of nursing.



As enrollments in nursing decline, colleges and universities will increasingly be forced to examine the viability of nursing programs. As Peter Buerhaus suggested, nursing may need to find new approaches to keep schools of nursing alive and to provide financial support to interested students.

Perhaps the greatest challenge facing nursing education, and a significant challenge for nursing as

a profession, may be the confusion surrounding requirements for entry into practice. As Bednash noted, finding a solution to this perplexing problem will require input from both the academic and practice arenas. Today, nurses continue to graduate from associate degree, baccalaureate degree, and diploma programs. Within the academic community, the requirements of individual programs vary widely, yet within the health care settings that employ nursing graduates, the distinction between nurses who have different levels of preparation is virtually non-existent. The situation is made more complex, said Bednash, by the growing belief among nursing academics that the requirements for today's professional practice environment cannot be achieved in either the AD or the baccalaureate program, and that the master's degree is perhaps the appropriate entry level credential for a registered professional nurse. Bednash goes on to suggest that we look

at changing the nomenclature in the profession to reflect different levels of preparation and different role expectations. She says, "Perhaps it's time for nursing to consider changing the rules and the names. Should we all be registered nurses? I don't think so. I believe the RN title should be left for...an entry level nursing provider who, I believe, would not be a professional, but a technical worker with great technical skills and great importance to the care system. And that a different professional clinician would be created to provide sophisticated clinical care, decision-making, and care coordination. And this individual...would not be a 'nurse.' So maybe we need a new name."

Kerfoot acknowledged that while nursing leaders must pay attention to the issues of basic educational preparation, they must also examine faculty practice models and how to better integrate nurses in academia and practice. She also called for innovative curriculums that better reflect the realities of today's practice settings and prepare nurses for working in environments that demand multiple proficiencies and innovative thinking.

More than one speaker called on the audience to examine ways that healthcare professionals could abandon the practice of educating new practitioners in isolated silos, and instead look at ways to integrate clinical education. This may well lead, thought Kerfoot, to more integrated practice as students entering the clinical arenas would be well accustomed to working with colleagues from other disciplines.

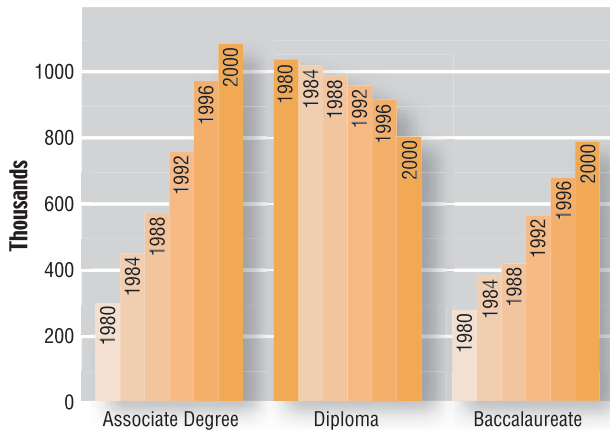
## Provide for Lifelong Learning

The need to provide vehicles for lifelong learning emerged as a theme common to all work places, including those in healthcare. Because a skilled work force is essential to long term growth and survival of the professions, said Kochan, all organizations—including healthcare organizations—must develop ways to attract and retain knowledge workers and must invest in efforts to

**"Perhaps it's time for nursing to consider changing the rules and the names. Should we all be registered nurses? I don't think so."**

*Polly Bednash, PhD, RN, FAAN*

**Basic Education of Registered Nurse Populations  
1980–2000**



Source: National Sample Survey of Registered Nurses, Bureau of Health Professions, Health Resources and Service Administration. Adapted from a slide used by Polly Bednash. Used with permission.

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continually enhance workers' knowledge and skills. Among the crucial new skills that organizations and workers of today must master, added Kerfoot, are those that foster innovation and creativity in the work place.

## Meet the Demands for Qualified Professionals

Each profession is grappling with how to meet future demands for qualified professionals. Examination of supply and demand trends in the field of pharmacy has led pharmacists to scrutinize their role more closely and to begin the process of determining which functions need to be performed by a professional pharmacist and which can be delegated to pharmacy technicians and other support staff. Such delegation, suggested Gouveia, will not only help alleviate issues of supply, but will also help move the profession from a production-based to a knowledge-based model. Organizations that develop a knowledge-based professional pharmacist model, he noted, will offer a more rewarding environment, likely increasing retention of expert practitioners.

In addition to role redesign, pharmacists are also examining the systems and structures that support prescription processing and production. Centralizing some of these systems—such as outpatient prescription processing—suggested Gouveia, might yield significant increases in efficiency, thereby helping to correct the imbalance between the supply and demand for pharmacists.

Physicians, noted Richard Cooper, face a different kind of issue. The increase in non-physician clinicians challenges the medical community to collaborate in new ways with other clinical disciplines. In particular, physicians must collaborate with new colleagues whose work complements and, at times, competes with the practice of medicine in order to develop unifying clinical principles that will guide care and minimize further fragmentation. This work will be enhanced, said Cooper, if the organization of care continues its “transition from solo or small group practices to multidisciplinary networks that facilitate the distribution of clinical responsibilities among healthcare professionals.” As the transition occurs, continued Cooper, we may find that we shift from a “physician monopoly for the ‘practice of medicine’ to a sharing of clinical authority among healthcare disciplines.”

In addition, noted Cooper, the increasing presence and expanding role responsibilities of non-physician clinicians must be factored into strategic plans related to the appropriate distribution of physician specialties in the coming years. The number of primary care physicians and of non-physician providers whose capabilities overlap with primary care physicians have both increased over the past decade. In the next decades, it is expected that the supply of primary care providers will exceed demand. At the same time, a shortfall in specialty providers is expected. Taken together, these two facts suggest that steps to alter the imbalance in supply and demand are warranted.

The projected shortage of nurses was the subject of much discussion, and ideas on how to alleviate the problem were offered by conference speakers and participants alike. Peter Buerhaus suggested that the role of the nurse in practice settings must be examined and steps must be taken to better use scarce RNs. He added that, while assistive staff must be used, we must be smarter and more proactive in designing effective ways to use assistive personnel, particularly in light of the recent data linking an RN-rich staffing mix to better patient outcomes. In addition, said Noreen Sugrue, steps to address the nursing shortfall must factor in an expected shortage in non-RN nursing care providers as



*Roy Simpson, RN, FAAN, Vice President for Nursing Informatics, Cerner Corporation, shares a comment at the conference.*

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well, making this a broader and more complex labor issue.

Discussions on how to increase the number of students who choose nursing as a career, and how to attract a broader mix of students that includes more men and minorities, occurred in several of the sessions. A number of speakers suggested that we look at the word “nurse” and think about whether a name change is in order. “Nurse is a gender-linked term,” noted Bednash. “The few men in nursing who have persevered have done so despite the common habit of demeaning male nurses as different or unusual.” Some agreed that the image problems faced by the nursing profession are so deeply embedded in society as to be impossible to address without eliminating or somehow altering the identifier of “nurse.”

## Getting There

Speakers seemed to concur that two critical prerequisites for needed changes in healthcare work environments are the ability to gather and use good data, and the need to cultivate innovative, breakthrough thinking.

Buerhaus made the case for refining our data tracking and measurement systems so that we have more and better data describing the work force, our healthcare institutions, and patient outcomes, including those sensitive to nursing. Together, these data can and should be used to monitor work force trends, to assess healthcare quality, and to evaluate the impact of different staffing and organizational structures on patient outcomes. Kochan encouraged participants who are making changes at the organizational level to avoid getting bogged down on trying to measure return on assets to the corporation. Instead, he said, the focus should be placed on identifying measures that can link

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**“Get some agreement on what the critical metrics are that have to be addressed... make them operational, bring them close enough to the work place so that you can measure them and the people that are involved can see the effects of their work on those outcomes and then go from there.”**

*Thomas Kochan, PhD*

changes to quality of care, productivity, and savings over time. He advises, “Look right down there at the work place. Collect the kind of data that show that if we change, if we start to introduce more flexible systems or bring these new organizational models into place, we can link it to patient quality of care [or] productivity in terms of staffing...Look for the operational indicators that anyone in your industry or in your profession would stand up and say, ‘Those are critical metrics. If we affect those on the front lines with these innovations, it will reverberate up through the rest of the organization and eventually affect the bottom line.’ So you have to start small, is my message...Get some agreement on what the critical metrics are that have to be addressed... make them operational, bring them close enough to the work place so that you can measure them and the people that are involved can see the effects of their work on those outcomes and then go from there.”

Conference participants kept returning to notions of reinventing and redesigning old systems and ideas. They called for breakthrough thinking on all fronts. “Hyperinnovation,” said Kerfoot, “is our only option for the future...The world is going exceptionally fast...We have to go even faster than we did before. [We must] look around us and find out, Who are the zealots out there? Where are the Florence Nightingales? Where are the Lydia Halls?...Where are the zealots of the future? Are they in this room? Are they in other places?” Speakers and participants agreed we must break through the boundaries that have historically prevented us from working with others to create new models of practice and education for the future.

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## In Conclusion

It is the hope of The Institute for Nursing Healthcare Leadership that this report will help bring many different discussions to new levels and that it will help formulate the critical questions we must address. For example:

- Where are the pockets in healthcare where innovations are being tried and are working well? What can we learn from existing models of effective interdisciplinary collaboration? How can these lessons help us begin to sculpt the practice models of the future?
- What will it take to move the nursing profession away from, as Bednash so aptly stated, “a moribund state of inaction” with regard to the preparation and licensing of new practitioners? How can we use the changes occurring in the education of all disciplines to our mutual advantage?
- How can we pool our intellectual and professional talents in order to overcome the critical patient care challenges posed by the current upheaval in the healthcare environment? How can we ensure safer environments for our patients as well as our staff? What support networks can we envision, for healthcare and other work settings, that will better meet the needs of today’s workers?
- What work can we begin today that may help us dampen the impact of what could be an unprecedented shortage of nurses in the coming decades? How can we encourage our master practitioners to stay in practice, not only caring for patients but also mentoring a new generation of clinicians? How can we inspire the best and brightest young men and women to enter the nursing profession?
- What are the critical metrics that need to be addressed, both by individual disciplines and by coalitions of stakeholders, in particular practice settings? How can we learn from one another as we address critical issues in our individual professions and in the system as a whole?

While it is true that there are discipline-specific issues that need to be addressed, as we move toward a higher level of policy-development and implementation regarding the work of healthcare, a cross-professional, cross-discipline approach will be crucial to our ultimate success. We learned from this conference that we are united not only by our challenges, but by many shared values as well—values that call for continuous improvement both in the quality of patient care and in the day-to-day experiences of those who choose caring for others as their life’s work. If we continue the exciting dialogue that was begun at this conference, we will be better able to meet the work force challenges that await us in 21<sup>st</sup> century healthcare.



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This National Invitational Conference for Executive Nursing Leadership in Academic Health Centers and Major Teaching Hospitals was cosponsored by:



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Founded in 1999 by Executive Director Joyce C. Clifford, PhD, RN, FAAN, the mission of The Institute is to increase the participation of nurses in health services leadership and promote excellence in policy, practice and education through inter- and intra- professional collaboration. It is an affiliate of the Carl J. Shapiro Institute for Education and Research at Harvard Medical School and Beth Israel Deaconess Medical Center. Contact [jcliffor@caregroup.harvard.edu](mailto:jcliffor@caregroup.harvard.edu) or visit [www.inhl.org](http://www.inhl.org).

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Summary report written by Corrigan Kantz Consulting, Inc., specializing in health-related communications for professional and lay audiences. Contact [mail@corrigankantz.com](mailto:mail@corrigankantz.com).

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The Institute for Nursing Healthcare Leadership  
One Deaconess Road, Baker 2  
Boston, MA 02215

617 632-9000

[www.inhl.org](http://www.inhl.org)



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