

# ISSUE BRIEF

## Nurse Workforce: Condition Critical

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A discussion featuring

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## Nurse Workforce

Nursing shortages, particularly in hospital settings, have made headlines in recent months. These come at a time when the U.S. health care delivery system is undergoing major shifts and changes at its very foundation. Nursing shortages have historically been cyclical and economically based. Yet, unlike the shortages of the eighties and early nineties, which resulted from imbalances in supply and demand and were corrected by market forces, the current undersupply is more complex and potentially more harmful.

The problem is not just in the number of nurses available, although shortages have been documented across the country in states such as California, New York, Maryland, and New Jersey. In reviewing the current nursing shortage on a national level, it initially appears that the supply may meet the demand. A closer examination of nursing skill level, however, reveals a dearth of nurses with strong science backgrounds and knowledge about new technology. For example, there is a paucity of registered nurses (RNs) in high-skill areas such as critical care, emergency, operating room, and pediatric intensive care. This situation is expected to worsen by the year 2010, when a national shortage of full-time equivalent (FTE) RNs in all skill areas will put the nursing workforce in critical condition.

There are several reasons why this current shortage may not be short-lived. To begin with, managed care has influenced many hospitals to cut back on their RN nursing staffs. As a result, many RNs have entered nonhospital settings. And the nurse population is getting older. According to data recently released by the Health Resources and Services Administration (HRSA), Department of Health and Human Services (DHHS), the average age of the RN population as of March 2000 was 45 years. Many of these nurses entered the profession as a second career at the associate and baccalaureate levels during the 1980s. At the other end of the pipeline, the American Association of Colleges of Nursing (AACN) and the National League for Nursing (NLN) have found that enrollment in nursing schools has decreased nationwide. Women, who continue to make up more than 90 percent of the RN workforce, have more career opportunities and have been making other employment choices.

The consequences of a critical national nurse shortage would be severe. Inadequate staffing levels often affect quality of care and can put the safety of

both patients and nurses at risk. An increase in overworked and understaffed nursing units would almost inevitably mean increased morbidity and mortality and failure to alleviate conditions that cause pain and disability. Other effects would include a less productive workforce and poor cost-containment, resulting in billions of dollars of unnecessary cost.<sup>1</sup> As one nurse states: "Understaffing puts nurses in a position of having to decide how to ration care: Should the nurse give an equal share to each patient, give only to those in greatest need, or give to those for whom she can do the most good?"<sup>2</sup>

Steps taken to address this problem have ranged from staffing ratio legislation in California (A.B. 394) to the employment of foreign nurses. The past several years have been marked by an increase in the use of nonprofessional and unlicensed assistant personnel, such as nursing aides, to replace skilled nurses. Recently, hospitals have also increasingly depended on nursing registries to fill vacant nurse positions.

This Forum session will focus on the impending nursing crisis and the forces that make this current shortage different from earlier ones. This meeting will be an opportunity to examine ways that states are facing the nursing shortage, approaches that the private sector might take in addressing this problem, and initiatives that Congress might undertake in helping to solve it.

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## FORCES AT WORK

The largest group of health care professionals in the United States, RNs number over 2.6 million, 2.2 million of whom are employed in nursing.<sup>3</sup> A number of forces are threatening to deplete their ranks or to challenge their ability to meet the needs of patients.

### Aging Nursing Workforce

Between 1983 and 1998 the average age of working RNs increased more than 4 years, from 37 to 42, according to an article by Peter Buerhaus and colleagues, published last year in the *Journal of the American Medical Association*.<sup>4</sup> During the same period, the proportion of the RN workforce younger than 30 years decreased from 30 percent to 12 percent, and the number of working nurses younger than 30 years decreased by 41 percent. The authors contend that over the next two decades, this trend will continue and that the largest cohorts of RNs will be between 50 and 69 years of age. The total number of FTE RNs per capita is forecast to peak around the year 2007 and decline steadily thereafter as the members of this cohort retire.

By 2020, Buerhaus and colleagues predict, the RN workforce will be roughly the same size as it is today, declining nearly 20 percent below projected RN workforce requirements. Unless the trend is reversed, they say, the RN workforce will continue to age and will eventually shrink. The impending critical shortage of RNs will come at a time when the first wave of baby boomers begin to retire, qualifying for coverage under the Medicare program beginning in 2010.

### Changing Requirements

Educators, employers, and others are recognizing the need for changes in nurse education to meet the nation's health care and health promotion needs. As of March 2000, the RN workforce included 22 percent with diplomas, 34 percent with associate degrees, 33 percent with baccalaureate degrees, and 10 percent with master's or Ph.D. degrees.<sup>5</sup> Most observers agree that the increasing complexity of health care argues for a redistribution of these levels of training. In fact, nursing schools have already been evaluating and revising their curricula. For example, diploma programs, once based on an apprenticeship model, have evolved to include some college course work.

### Nursing School Enrollments

Nursing school enrollments have shrunk across the nation in recent years as many potential applicants have

looked to other careers. According to the AACN, enrollments of nursing students in entry-level bachelor's degree programs fell by 6.6 percent in 1997, 5.5 percent in 1998, and 4.6 percent in fall 1999.<sup>6</sup> In addition, data from the NLN indicate declines in enrollments in all types of entry-level nursing programs. Recent data from the AACN shows that enrollment continued to decrease in 2000, but at a slower rate.<sup>7</sup> The decline in bachelor's degree enrollments is in sharp contrast to the health system's escalating demand for baccalaureate and graduate prepared nurses.

### Nurse Faculty and Training

Exacerbating the nursing shortage overall are inadequate numbers of doctorally prepared nursing faculty.<sup>8</sup> Although faculty shortages do not exist nationwide, they are acute in certain states and localities. Ironically, lower enrollment can be a contributor to, as well as an outcome of, such shortages. As Pamela Watson, chair of the Department of Nursing at Thomas Jefferson University in Philadelphia, states, "Lower enrollment equals less revenue equals less faculty."<sup>9</sup>

The AACN reports that over the years applicant numbers are expected to increase as word of the growing demand for nurses spreads. However, educators warn that there may not be enough teachers available to train the needed nursing workforce and that schools face a number of barriers to attracting the faculty they need. For example, doctorally prepared, full-time nursing professors at four-year colleges and universities earn comparatively lower salaries (an average of \$66,132 in 1998-99) than their peers elsewhere on campus. Other barriers include insufficient numbers of doctorally prepared faculty willing to teach and, especially for clinical faculty, difficult working conditions that include a heavy workload and long working hours.

Moreover, while several schools whose enrollments declined point to decreased number of applicants, others report their student shortfalls were due to intentional cutbacks because of faculty shortages, increased competition with other schools for clinical training sites, or other resource constraints.<sup>10</sup>

## ROLE OF MANAGED CARE AND HOSPITALS

### Managed Care

Managed care has been looked upon as a key component in the latest nursing shortage. The shift to managed care has been a factor influencing a decrease in hospital admissions for inpatient stays. While an overall decrease

in inpatient hospital population might reflect a decreased need for nurses working in hospitals, a higher concentration of more acutely ill patients requires a higher concentration of highly skilled nurses. Thus, although the supply may meet demand in terms of overall numbers, the supply of nurses with strong science backgrounds and knowledge of new technology does not.

Buerhaus and Douglas Staiger suggest that managed care has adversely affected the employment and earnings of nurses nationwide. "In particular, it appears that managed care has reduced demand for RNs, initially in hospitals and more recently in home health, and as a result has led to a decline in RN earnings."<sup>11</sup> However, clear patterns are emerging that show increased demand for RNs across all sectors, presaging a positive effect on RN employment and earnings.

## Hospitals

Hospitals continue to make up the largest sector of the nurse labor market, particularly for RNs. The authors of a study reported in the January-February 1999 edition of *Health Affairs* assert that a change in employment growth in this sector will have a disproportionate effect on overall employment and earnings trends.

The trends since 1994 in high HMO states show little growth in hospital employment of RNs. On the other hand, very recent evidence suggests that hospital employment of RNs may be growing once more in the high HMO states. Between 1996 and 1997 employment grew 8.2 percent in the states with high HMO enrollment, with much of this growth coming from hospital employment. At the same time, in 1998 there were a number of reports of RN shortages throughout the country, suggesting that hospitals may be beginning to increase the size and elevate the skill of their nursing staffs.<sup>12</sup>

The authors also report that one possibility for the recent upturn in RN employment is that the slowdown in RN employment growth was temporary as hospitals passed through a transitional period in which they downsized to improve efficiency. The recent increase in RN employment might also represent a short-term correction for past cuts. "Hospitals may have scaled back the number of RNs and reduced the skill mix of nursing personnel to a point at which it was no longer possible to appropriately treat a growing number of older and acutely ill patients."<sup>13</sup>

Hospitals cannot address the current shortage as easily as they could past shortages because many are financially weaker than they have been in years. According to a recent report by Mary Jaklevic and Ed

Lovern in *Modern Healthcare*, hospitals reduced their reliance on RNs after the shortage of the mid-1980s and have few places left to cut.<sup>14</sup> The authors argue that hospitals are competing with medical groups, insurers, and dot-coms for a shrinking pool of qualified nurses. "Nurses' salaries are hospitals' largest expense, constituting approximately 20 percent of their budgets. However, this budget is expected to increase as hospitals boost compensation and increase their use of temporary staffing agencies."<sup>15</sup>

Any strategy a hospital may use for dealing with the nursing shortage has a price. According to the report in *Modern Healthcare*, Baptist Health, a four-hospital system in Jacksonville, Florida, is spending \$4 million this year on a program that focuses largely on increasing pay for current nurses. In an effort to attract nurses to their staffs, more hospitals find themselves in bidding wars. It is estimated that as many as two-thirds of hospitals offer nurses signing bonuses, some as high as \$8,000.<sup>16</sup> Temporary staffing agencies are also being utilized more by the industry to supplement RN staffing.

## Other Settings

The slowdown of RN employment in many hospitals has been accompanied by an increase in RN employment in nonhospital settings such as home health care and long-term care. According to Buerhaus and colleagues, employment in these settings grew in the 1990s, but a slowdown in RN employment has become more evident. However, as demand increases for RNs, patterns are now emerging that show nonhospital settings are also experiencing a shortage, as both hospital and nonhospital settings compete for the same pool of qualified individuals.

## POSSIBLE SOLUTIONS

There have been several efforts to address the nursing shortage. These have ranged from initiatives by nursing schools to improve enrollment to creative hiring strategies to legislation in Congress.

### Improved Nursing School Enrollment

Geraldine Bednash of the AACN argues that attracting a cadre of young, college-bound students will require reform in nursing education and in the licensure and certification mechanisms used to grant practice to RNs with different educational preparation.<sup>17</sup>

In a recent survey by the AACN, deans of nursing schools identified some proven methods to increase

enrollment in baccalaureate programs.<sup>18</sup> These approaches include the following:

- *Recruiting from within:* Encouraging associate-degree nursing and hospital-based diploma graduates to continue their education.
- *Advertising and promotion:* Using media and promotional outlets to advance messages about the schools' particular academic programs and about the rewards of a nursing career.
- *Priming the early pipeline:* Directing the message that nursing is a rewarding career to younger groups by sponsoring programs such as a nursing camp in Allentown, Pennsylvania; offering college credit courses on teaching institutions' campuses to high school students; and conducting career days at elementary schools.
- *Targeting underrepresented and nontraditional groups:* Stepping up efforts to provide tutoring in English as a second language, mentoring programs targeting minority high schoolers, linking with historically black colleges, and reaching out to men.
- *Hiring dedicated recruiters:* Hiring experienced inhouse recruiters to help find adequate numbers of qualified applicants to fill empty slots.
- *Improving financial aid:* Finding ways to build creative financial aid packages that pay off, despite tight school budgets.
- *Enhancing distance learning:* Taking advantage of distance learning programs that have positive effects on enrollments.
- *Polishing the image of nursing:* Developing programs to educate high school counselors about nursing roles and careers to support the reality that nursing is a knowledge-based, highly skilled profession that changes people's lives through health promotion, disease prevention, and making people's lives better during illness.

### Unlicensed Assistive Personnel

One solution the industry has used to maximize productivity while decreasing costs has been to put unlicensed assistive personnel (UAPs) into the staff mix. These staffers, sometimes called care extenders, nursing assistants, or patient care technicians, can be trained to perform tasks that nurses would otherwise have to perform but at a lower cost. However, there are risks associated with giving UAPs nursing functions. Some tasks should or must be performed by licensed

nurses, according to facility guidelines, state laws, and medically accepted procedures. Further, employing too many UAPs may strain the surveillance capabilities of RNs, who are responsible for delegating tasks to UAPs and evaluating the outcomes of the tasks performed.

### Foreign Nurses

Immigration of foreign RNs educated outside of the United States is also a strategy being employed. Immigrant nurses are often recruited from English-speaking countries such as England, Canada, South Africa, Australia, and the Philippines. Buerhaus and colleagues note, however, that "eliminating the projected shortage would require immigration on an unprecedented scale, and such a policy would not be without controversy."<sup>19</sup> The Nurse Relief for Disadvantaged Areas Act (P.L. 106-95) provides temporary nonimmigrant visas for up to 500 nurses a year. According to chief sponsor Rep. Bobby Rush (D-Ill.), the law, to expire in four years, would "assist the under-served communities of this nation by providing adequate health care for their residents." A 1989 law (P.L. 101-238) that granted temporary visas to foreign nurses because of the shortage at the time expired in 1997.

### Temporary Nurses

Recently there has been an increased dependency on temporary nurses in hospitals. These may be nurses without specialized training who "float" into critical care units or nurses hired on a daily basis from nursing registries. Hospitals, particularly chain hospitals, also hire travel nurses, who work a limited number of months before shifting elsewhere to their next assignment. Because of both trends, full-time nurses say they increasingly work with nurses who are not permanently assigned to their units.<sup>20</sup>

According to Jaklevic and Lovern, Cross Country TravCor, one of the nation's largest medical staffing companies, says it is trying to fill more than 14,000 open positions, mostly RNs in acute-care hospitals around the country, more than double the openings a year ago.

In response to the growing demand for nurses, Cross Country and other agencies like them began upping the ante this fall, offering a more comprehensive benefit package, and high pay to recruit nurses to a work life that typically involves traveling to a hospital in another city and working 13-week stints. In addition to accepting costs for bringing in agency nurses, several hospital executives say those nurses bring a quality risk simply because they are not as familiar with the particular hospital setting as their own staff nurses.<sup>21</sup>

## Work Standards

Addressing the conditions under which nurses work is another approach. Every day, nurses in hospitals across the country work up to 16-hour shifts, putting themselves and their patients at increased risk of error and injury. In the case of nurses, mandatory overtime is a calculated business practice used by hospital administrators as a quick fix to a nurse staffing shortage.<sup>22</sup> Congress is playing a part in addressing the issue of endangered patient safety that can occur as a result of unsafe staffing practices. A bill (H.R. 1289) that was introduced in the House would limit the number of hours licensed health care workers, including RNs, can be required to work. This bill, known as the Registered Nurses and Patients Protection Act, is sponsored by Rep. Tom Lantos (D-Calif.) and would amend the Fair Labor Standards Act so that no RN would be required to work beyond eight hours in any workday or 80 hours in any 14-day work period.

## ROLE OF THE FEDERAL GOVERNMENT

The federal government plays a minor role in training nurses relative to the role it plays in physician training. Graduate medical education funds given to teaching hospitals have some provision for diploma students in schools of nursing operated in such hospitals. The Medicare program does make payments to certain hospitals that operate nursing programs and to a small number of other hospitals with links to college or university-based nursing education programs. However, many hospitals have also closed their diploma schools—in part because of the move toward baccalaureate-trained nurses.

Because of the restrictive policies of Medicare, no funds are available to support clinical training of advanced practice nurses in hospital or other training sites, and most of the support for diploma programs goes to private, nonteaching hospitals located in five states. Most university-based programs and community college programs are not eligible for any Medicare support at either the undergraduate or the graduate level.

Opportunities do exist at the federal level for funding for education and teaching. First, the Nurse Education Act (NEA)—Title VIII of the Public Health Service Act—supports more than 70 percent of the doctoral programs that prepare faculty and provides stipend funds to 95 percent of graduate nursing students. The NEA focuses primarily on the education of

nurse practitioners, clinical nurse specialists, certified nurse-midwives, and nurse anesthetists—registered nurses who provide vital care at the advanced practice level. The legislation also provides financial assistance for undergraduate, graduate, and disadvantaged students; seeks to increase the diversity of the nursing profession; and is the source of vital seed money for educational innovations. Second, the National Institute of Nursing Research (NINR) funds the development of new nurse scientists, the foundation of nursing faculty. Currently, NINR has one of the smallest funding bases of all member components of the National Institutes of Health.<sup>23</sup> However, funding is expected to increase over the next couple of years.

Buerhaus has suggested that the federal government create a commission to address the issue and attach funding to the recommendations.<sup>24</sup> To date, the federal government has primarily addressed the supply side of the shortage with educational funding; it has done less to influence the demand side by encouraging employers to address the shortage.

Sen. John Kerry (D-Mass.) and Rep. Lois Capps (D-Calif.) introduced bills (S. 706, H.R. 1436) that directly address the nursing shortage. Entitled the “Nurse Reinvestment Act,” the legislation contains provisions that would include the recruitment of students, with a focus on minorities, into the profession; the reauthorization of the Medicaid match for nurse education and training in nursing homes; and the establishment of a national nursing service corps scholarship program. Another bill (S. 721), introduced by Sen. Tim Hutchinson (R-Ark.) and called the Nurse Employment and Education Development (NEED) Act, would amend the Public Health Service Act to establish a nurse corps as well as address recruitment and retention strategies for the current and impending nursing shortage.

## STATE ROLE

States can and have chosen to address the nursing shortage in several ways; these include drafting legislation that establishes safe staffing ratios, giving more funding to hospitals and nursing homes to meet the higher nursing costs, and increasing funds to schools, students, and current nurses who want to increase their nursing skills.

Many states across the nation are taking direct action to address the nursing shortage in an effort to ensure safe conditions for nurses and patients. California became the first state to adopt minimum, specific, and numerical

nurse-to-patient ratios for all hospital units. The law (A.B. 394), signed by Gov. Gray Davis on October 10, 1999, also restricts floating and prohibits the performance of nursing functions by unlicensed staff. The California Department of Health Services has begun the regulatory process to establish ratios of nurses to patients. However, the staff responsible for implementing this law have had difficulty doing so.

Other states are following California's example. Legislation proposing nurse-to-patient ratios in hospitals or nursing homes has been introduced in as many as 19 other states. Seven states—California, Kentucky, Massachusetts, Minnesota, New Jersey, Rhode Island, and Utah—have laws on the books to protect health care employees who blow the whistle on unsafe hospital conditions.

California last year enacted a bill that establishes a special fund for people from low-income families to receive assistance to attend nursing school. The state also provides tuition reimbursement to RNs who choose to serve in facilities, such as county public health departments, in medically underserved communities.<sup>25</sup>

In Vermont, state officials and a private foundation are proposing to contribute more than \$5 million to establish a state nursing center and nursing student loan program.<sup>26</sup> In Texas, the Texas Hospital Association and Texas Nurses Association have joined forces to draft legislation aimed at doubling the annual number of nursing school graduates by 2007.<sup>27</sup> And California has two bills pending in the state Senate that are aimed at doubling the number of nursing graduates. S.B. 317, sponsored by Sen. Deborah Ortiz (D) would provide funding to expand the capacity of existing nursing programs operated by the California state university system and by California community colleges. S.B. 457, sponsored by Sen. Jack Scott (D) would streamline the transfer of nursing education credits among the state's community and four-year colleges by standardizing prerequisite course requirements to expedite the progress of graduates through the programs.<sup>28</sup>

Currently, the Robert Wood Johnson Foundation (RWJF) is funding a national grant program called Colleagues in Caring (CIC), whose primary purpose is to help states and regions build systems of workforce development. Through these state grants, the workforce will have the capacity to adapt to the rapid and continual changes in the nation's health care system. Twenty-seven states and regions are participating in this project, with 20 of them receiving RWJF funds: Hawaii, Alaska, California, Arizona, Idaho, Montana, Colorado,

South Dakota, the Coastal Bend of Texas, Minnesota, Kansas City metro region, Northeast Missouri, Mississippi, North Central West Virginia, South Carolina, Maryland, Connecticut, New Jersey, North Carolina, and the District of Columbia.<sup>29</sup>

Using the CIC model, each site brings together its region's stakeholders in health care and nursing practice to create and sustain a workforce development system within its region. These stakeholders include all levels of area nursing schools; all categories of area nursing care employers, including nursing homes, home health agencies, health departments, physician groups, and hospitals; appropriate professional organizations, accrediting agencies, state and regional education departments; policy bodies relevant to the nursing workforce; and consumers, payers, and businesses.

## THE FORUM SESSION

This Forum session will provide an overview of the nursing shortage and provide an opportunity to review the current nursing workforce. In addition, discussion will address how policy-movers at the federal, state, and local level are confronting this shortage before it becomes an irreversible problem to the nation. Key questions will include the following:

- How and why is this current nursing shortage different from previous shortages?
- What is the nature of states' "safe staffing" legislation? Why are states addressing the nursing shortage this way?
- Are UAPs a solution or are they adding to the problem? How effective have they been in addressing the current nursing shortage?
- How has this shortage affected different types of providers?
- How does the shortage affect the quality of care for patients?
- Are recent anecdotal cases of "hiring your own nurse" a sign of the times or a reality of the future?
- Are implications of the nursing shortage more profound in rural areas than in urban hospitals and nonhospital settings?
- Why are hospitals and nursing homes most severely affected by the current nursing shortage?
- Is assuring an adequate nurse workforce a federal responsibility? What is the correlation, if any,

between the availability of nurses in the health workforce and the nature and funding of federal discretionary nursing programs?

- What other federal policies affect the demand for and supply of nurses?
- Do state nursing policies affect the supply of nurses from state to state? If so, how?

## Speakers

**Marla Salmon, R.N., Sc.D., F.A.A.N.**, will begin the session with an overview of the nursing shortage. She is dean of the Nell Hodgson Woodruff School of Nursing at Emory University where she is also a professor of both nursing and public health. Salmon joined the Emory faculty after serving as professor and graduate dean of the School of Nursing at the University of Pennsylvania where she was responsible for both master's and doctoral nursing programs. Prior to that, Salmon was director of the Division of Nursing, HRSA, for the DHHS, leading the principal federal programs aimed at shaping the nation's nursing workforce. In her national leadership roles, Salmon has been involved in a number of principal advisory groups, including the White House Task Force on Health Care Reform. She was also the chair of the National Advisory Council on Nurse Education and Practice.

**Maryann F. Fralic, R.N., Dr.PH., F.A.A.N.**, will discuss strategies for addressing the nursing shortage from the perspective of private industry. She is professor and director, corporate and foundation relations, for the Johns Hopkins University School of Nursing. She also serves as executive advisor for the Nursing Executive Center of the Advisory Board and as Senior Consultant for the Robert Wood Johnson Nurse Executive Fellows Program. Fralic was formerly vice president for nursing, Johns Hopkins Hospital, and associate dean for the university's School of Nursing. She served as senior vice president, nursing, Robert Wood Johnson University Hospital, New Brunswick, New Jersey, and clinical associate dean, Rutgers University College of Nursing.

**Raymond Grady** will provide the hospital management perspective in addressing the nursing shortage. Grady is president and chief executive officer of Evanston Hospital and serves as president of the Hospitals and Clinics Division for Evanston Northwestern Healthcare. A member of the American Hospital Association (AHA) commission on workforce for hospitals and health systems, he is also a fellow in the American College of Healthcare Executives and served as the AHA commissioner to the Accrediting Commis-

sion on Education and Health Services Administration for seven years. He served as chair of the Accrediting Commission from 1997 to 1998.

**Margaret Hegge, R.N., Ed.D.**, will provide a state perspective of the nursing shortage and discuss the Colleagues in Caring program, a national initiative to help states and regions build the nurse workforce. Hegge is director of academic evaluation and assessment, South Dakota State University, and directs the university's Colleagues in Caring Grant for Nursing Workforce Development. Colleagues in Caring is a project sponsored by the Robert Wood Johnson Foundation and the American Association of Colleges of Nurses. She has authored various publications and recently received the South Dakota Nurses Association President's Award.

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