

Peter I. Buerhaus
Douglas O. Staiger
David I. Auerbach

Policy Responses to an Aging Registered Nurse Workforce

Executive Summary

- ▶ In this final article of an important four-part series the authors summarize their earlier findings and offer some potential strategies for dealing with an expected large decrease in the supply of RNs and continued aging of the RN workforce.
- ▶ Suggested actions to strengthen the professional nursing workforce include:
- ▶ Prepare for the needs of an older RN workforce — 40% of working RNs will be over the age of 50 by 2010.
- ▶ Develop ways to better use scarce RNs by enhancing the application of labor-saving technology and improve the training and competence of unlicensed assistive personnel.
- ▶ Rethink regulations mandating hospital staffing levels and ratios — shift focus to actively monitoring hospitals that cut nurse staffing excessively and make that information publicly available.
- ▶ Prepare for smaller RN student enrollments and modify the curriculum in response to realistic learning needs of students and ongoing changes in workplace demands.

THIS FOUR-PART SERIES on changes in the registered nurse (RN) workforce has reported the results of several analyses designed to assess: (a) plausible explanations for the current shortage of RNs in hospital specialty care units (Buerhaus, Staiger, & Auerbach, 2000a); (b) the influence of older-aged associate degree graduates in explaining the rapid aging of the RN workforce (Auerbach, Buerhaus, & Staiger, 2000); and (c) the expansion of new career opportunities for women and the declining interest in nursing as a career (Staiger, Auerbach, & Buerhaus, 2000). These analyses were conducted as supplemental investigations of a larger study on the aging RN workforce (Buerhaus, Staiger, & Auerbach, 2000b). That study examined key sources of observed change in the age distribution and total supply of RNs, and projected the future age distribution and total RN supply to the year 2020.

The trends that have been discussed in this series are likely to dominate the RN workforce during the next few decades. An aging and eventually shrinking RN workforce will directly affect not only the nursing profession, but present formidable challenges to employers, physicians, nursing educators, the

public, and policymakers. In this article, the last of the four-part series, policy responses aimed at strengthening the current and future professional nursing workforce are discussed.

Summary of the Evidence

Over the past 25 years, there has been a tremendous expansion in career opportunities for women outside of nursing, and a corresponding decline in interest by women in nursing careers. This trend is most likely the result of the women's movement that was occurring throughout society during this time. In part three of this series

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PETER I. BUERHAUS, PhD, RN, FAAN, is Associate Dean for Research, and Valere Potter Distinguished Professor, Vanderbilt University School of Nursing, Nashville, TN.

DOUGLAS O. STAIGER, PhD, is Associate Professor of Economics, Dartmouth College, Hanover, NH; and Research Associate, National Bureau of Economic Research, Cambridge, MA.

DAVID I. AUERBACH, PhD(c), is a Doctoral Student, Program in Health Policy, Harvard University, Cambridge, MA; and a Pre-Doctoral Fellow in Health and Aging, National Bureau of Economic Research, Cambridge, MA.

(Staiger et al., 2000) data showed the increased interest of freshman women in careers outside of nursing since the mid 1970s. The decline in interest in nursing closely corresponds to results of the cohort analysis reported by Buerhaus and colleagues (2000b), which found that women graduating from high school in the 1990s were 35% less likely to become RNs compared to women who graduated in the 1970s. As a consequence of the declining interest in nursing, the number of women becoming RNs has decreased sharply in recent years, particularly among younger-aged women. Because the expansion of non-nursing career opportunities for women is likely to persist, it is reasonable to expect that the number of women who will become RNs in the future will remain low.

The declining interest in nursing is already affecting enrollment into nursing education programs as well as adversely affecting the RN workforce. Since 1995, enrollment in all basic nursing education programs (baccalaureate, associate, or diploma) has fallen each year by approximately 5% (American Association of Colleges of Nursing [AACN], 2000). In addition, as described in part one of this series (Buerhaus et al., 2000a), the decreasing number of RNs under the age of 30 may be partly responsible for the current shortage of RNs in hospital intensive care units (ICUs). This is because ICUs have traditionally attracted younger-aged RNs, and today there may simply be too few young RNs available for hospitals to attract into this setting. The analysis also showed that shortages in operating rooms and post-anesthesia recovery units, where the oldest hospital-based RNs work, may be the result of the retirement of older-age RNs. The reduction in enrollment in nursing education and the development of shortages in hospital specialty care units should be seen as alarm bells foreshadowing trends that are likely to appear more broadly unless

actions are taken to prepare for the future.

The declining interest in the nursing profession has also led to the aging of the RN workforce, and will soon lead to a decline in the overall supply of RNs. The large numbers of RNs that entered the labor force in the 1970s (the result of both the large number of people born during each year of the baby boom generation and the high interest by women in nursing) are now over the age of 40 and not being replenished by younger and more recent cohorts of RNs. Between 1983 and 1998 the number of RNs in the workforce under the age of 30 years fell by 41%, compared to only a 1% decline in the number under age 30 in the rest of the U.S. workforce (Buerhaus et al., 2000b). The reduction in younger-age RNs and the aging baby boom RNs will mean that the average age of working RNs (currently 41.9 years) will continue to increase, rising another 3.5 years to 45.4 years by 2010. At about the same time, the size of the RN workforce will stop increasing and actually begin to shrink as RNs start to retire from nursing in ever increasing numbers. Eventually, the decrease in the supply of RNs is expected to lead to shortages of RNs, the severity of which will depend on how demand for RNs changes in the future.

What If Nothing Is Done?

One might ask "What if nothing is done to deal with these implications? What is likely to happen?" Although it is impossible to predict the future with certainty, given the implications of the trends described above, it is possible to develop a scenario of what might reasonably unfold in the years ahead.

If nothing happens to reverse the trends in the aging of the RN workforce, the supply of RNs will eventually quit growing and begin contracting near the end of the decade (Buerhaus et al., 2000b). At the same time, however, many

forces will be accelerating the demand for RNs, particularly the 78 million baby boomers who will reach 65 years of age over the next 3 decades. The contraction in supply at the same time demand for RNs increases is expected to lead to shortages of RNs. By the year 2020, the supply of RNs is projected to fall 20% below predicted requirements (Buerhaus et al., 2000b) which represents a shortfall of approximately 400,000 RNs (see Figure 1).

When this shortage eventually develops in the nurse labor market, the natural response of employers will be to raise wages and nonwage benefits. The increase in RN wages can be expected to lead to at least three effects. First, higher RN wages are likely to induce some increase in the supply of RNs. The increase would come from existing RNs as some who are not working may decide to enter the market, others working part-time may switch to full-time hours, and some RNs may work overtime hours. Raising wages would also result in some people choosing to enter nursing education who otherwise would not have decided to pursue a nursing career. In addition, supply could increase as foreign-educated nurses are attracted to the higher wages being paid in the United States.

In addition to raising the supply of RNs, the second effect of employers' raising RN wages in response to shortages would be some reduction in the demand for RNs. As employers raise RN wages, the cost of labor increases. In turn, this provides an economic incentive to reduce costs by employing fewer higher-wage RNs and employing more lower-wage nursing personnel, for example via the substitution of LPNs and aides for RNs. Eventually, as wages, supply, and demand adjust, the labor market will reach a new equilibrium with higher wages and RN supply and demand in balance.

The third effect of increasing RN

wages will be to elevate the costs of health care, particularly in hospitals where the majority of RNs are employed. As a result, the budgets of both private and public-sector payers will be affected as will the public's pocketbook. For example, an increase in RN real (inflation adjusted) wages of 20% (approximately the increase seen in the late 1980s) over the next 2 decades would cost roughly \$15 billion per year, or 1.5% of personal health care expenditures, with over half of the cost falling on hospitals.

The shortages that are expected in the future are likely to jeopardize access to medical and surgical care, increase patient waiting times, and reduce quality of care and the ability of nurses to ensure desirable patient outcomes. If shortages linger, the public could lose confidence in hospitals and in the health care system's ability to provide for their health care needs. Finally, employers will have to prepare for an older and smaller RN workforce, educators will have to deal with smaller numbers of nursing students, and the nursing profession will have to cope with increasing demands placed on an older workforce. Given these potentially wide-ranging effects, it is prudent to begin implementing actions to strengthen the professional nursing.

Actions to Strengthen the Professional Nursing Workforce

Actions that can be undertaken to address the reasons for and implications of an aging RN workforce can be grouped into three categories: (a) those that accept the declining supply of RNs as inevitable, (b) actions that attempt to increase supply, and (c) actions intended to increase the visibility of and policy interest in the RN workforce (see Table 1).

Actions That Accept the Declining Supply of RNs as Inevitable

If the declining supply of RNs is inevitable, a wide range of actions must be taken to prepare for the changing workforce of the future. These include preparing for an older workforce, developing ways

Table 1.
Actions to Strengthen the Professional Nursing Workforce

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| <p>Actions that Accept the Declining Supply of Registered Nurses as Inevitable</p> <ul style="list-style-type: none"> • Prepare for an older RN workforce • Develop ways to better use scarce RNs • Rethink regulations mandating minimum hospital nurse staffing levels and ratios • Prepare for smaller enrollments • Prepare RNs for their future roles <p>Actions that Attempt to Increase the Supply of Registered Nurses</p> <ul style="list-style-type: none"> • Improve the image of nursing • Increase enrollment in nursing education • Eliminate stigmas and barriers facing men and minorities • Develop ways to keep older RNs in the workforce • Allow more foreign educated RNs in the United States <p>Actions Intended to Increase the Visibility of and Policy Interest in the Nurse Workforce</p> <ul style="list-style-type: none"> • Conduct research on the nursing workforce and on nursing's impact on quality of care • Convene an Institute of Medicine study or special government commission • Conduct studies documenting the impact of nursing on quality and broadly disseminate findings • Capitalize on the positive public opinion of nursing |
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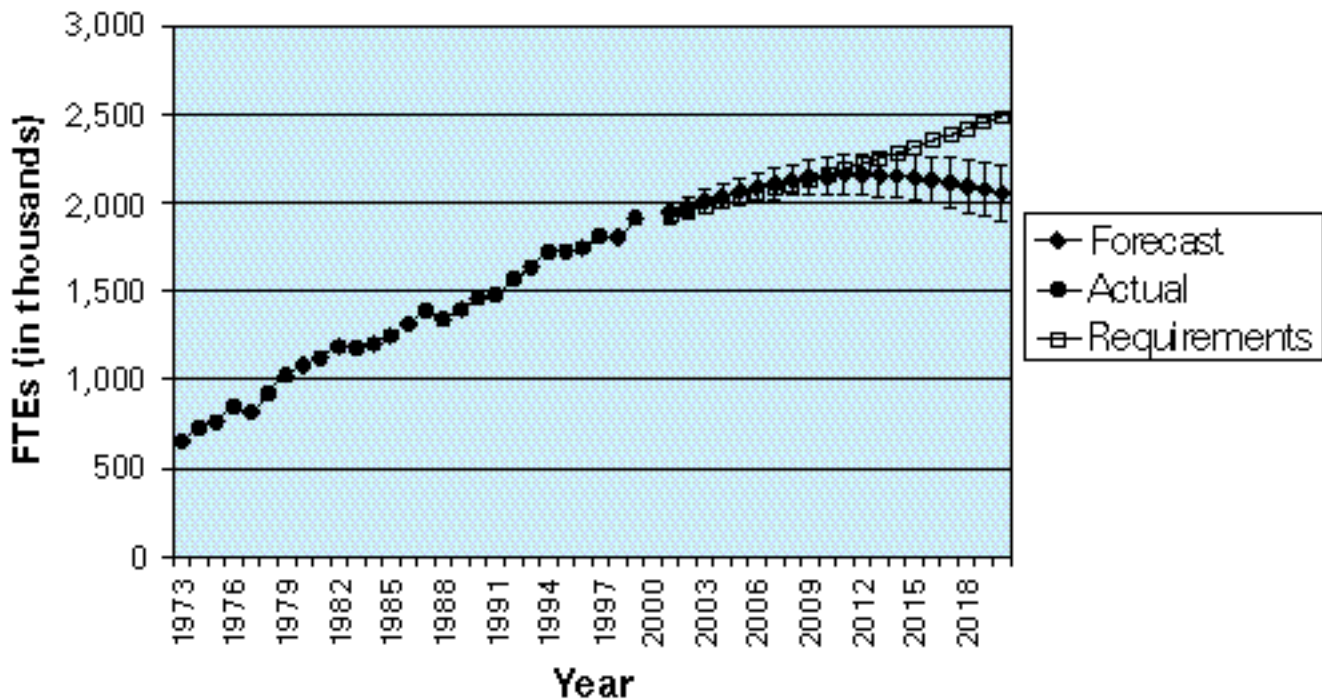
to better use scarce RNs, rethinking minimum hospital nurse staffing regulations, preparing for smaller enrollments, and preparing RNs for their future roles.

Prepare for an older RN workforce. As hospitals adapt to changing financial, technologic, and demographic forces, it can be expected that they will continue to experiment with redesign efforts. However, evidence exists that nurses' physical, mental, and emotional health were adversely affected when the pace of hospital restructuring accelerated in the early 1990s (Cheng, Buerhaus, Colditz, & Kawachi, 1999). Thus, as older RNs dominate the nursing workforce (40% of working RNs will be over the age of 50 by the year 2010), it behooves hospitals to design work processes and clinical environments that are more ergonomically sensitive and minimize the development of negative impacts on nurses' health (see *OR Manager*, 1999). Compared to younger RNs,

older RNs are more likely to have neck, back, and foot injuries, as well as a reduced capacity to lift patients, move equipment, and carry out other physical tasks (Rogers, 1996). Failure to take into account the ergonomic needs of an aging RN workforce may inadvertently induce RNs to seek employment in another institution where conditions are better or even leave the workforce altogether.

Develop ways to better use scarce RNs. Efforts are needed to design and test alternative delivery models and nursing processes that recognize the reality of shortage conditions. Specifically, better ways to provide basic nursing services that more effectively use labor-saving technology and other care providers, particularly unlicensed assistive personnel, must be developed and evaluated. Enhancing the training and education levels and basic skills of nonprofessional nursing personnel should be an explicit part of this strategy. Taking better advantage of

Figure 1.
Forecast of Total RN FTEs vs. Requirements Estimated by the Federal Government, with 90% Confidence Intervals



future scarce RNs by using technology and nonprofessional personnel appropriately will enable the profession and employers to be better prepared for the challenge of maintaining high quality even as shortages materialize.

Rethink regulations mandating minimum hospital staffing levels and ratios. In fall 1999, California's governor signed legislation to eventually establish mandatory hospital nurse staffing regulations (Spetz, in press). The California Department of Health Services was initially given 2 years to develop the regulations, but another year has recently been added. The legislation was the outcome of years of effort by proponents who felt that changes in hospitals during the 1990s were detrimental to nurses and patients. Efforts leading to the passage of the California legislation sparked heated debate and acrimony among hospitals, nursing organizations, labor unions, and others.

The motivations of proponents of regulating nurse staffing are understandable and reflect the concerns of many in nursing. But the case for nurse staffing regulations faces two major difficulties. First, if as expected the number of RNs declines in the future, then some reduction in nurse staffing levels is inevitable. Thus, the real issue is ensuring that the results of these likely staffing reductions on quality of care are minimized, and that dangerously low staffing levels are avoided. Rather than focus on broad regulation of nurse staffing, efforts could be more productively directed at monitoring hospitals that cut nurse staffing excessively and making that information publicly available so that consumers and health plans are aware of these conditions. A second difficulty faced by proponents of nurse staffing regulations is the lack of convincing scientific evidence that establishes the relationship

between nurse staffing and quality of care. Research is needed to both identify thresholds below which staffing levels should not fall, and to identify best practices for using fewer RNs while maintaining quality of care.

Prepare for smaller enrollments. Based on evidence discussed in part three of this series (Staiger et al., 2000), during the next 5 to 10 years, it is likely that both the number of younger people entering baccalaureate nursing education programs and the number of older people entering associate degree programs will remain low. In addition, the overall academic ability of prospective students is likely to continue to lag behind those pursuing non-nursing professions. Thus, competition for the shrinking number of students among nursing programs will heighten, and tensions are likely to develop between longer and more comprehensive baccalaureate pro-

grams and lower cost and shorter associate degree programs. Both types of programs will have to prepare for lower enrollments, adjust admission standards, and modify curriculum and teaching methods to accommodate changing student ability (if they have not already done so), and develop more aggressive strategies to attract and retain students.

Prepare RNs for their future roles. As fewer RNs are available to satisfy the increasing health care needs of the population, it will be important to ensure that available RNs are prepared for the changing roles they will play in meeting society's needs. Changes in the roles of RNs are already underway. Studies of employment trends in the nurse labor market (Buerhaus & Staiger, 1996, 1999) show rapid growth in RN employment in home health care and nursing homes during the 1990s. In the longer term, employment in non-hospital settings is expected to grow substantially and RNs must be prepared to assume new roles and responsibilities in these settings. In the future, RNs must be educated to care for both the acute and long-term care needs of the growing number of elderly. Specifically, undergraduate and graduate nursing curricula should place greater emphasis on gerontology, mental health, and case management of chronic conditions. Finally educators must look ahead to the roles RNs are likely to take on as the numbers of RNs decline. In particular, supervisory skills are likely to become more important as less-skilled personnel are substituted for increasingly scarce RNs.

Actions that Attempt to Increase the Supply of RNs

The second category of actions to prepare for the future are those that are designed to increase the supply of RNs. These include improving the image of nursing, reducing the costs of nursing education, eliminating stigmas and barriers facing men and

minorities, developing ways to keep older RNs in the workforce, and allowing more foreign-educated RNs in the United States.

Improve the image of nursing. The image of nursing can be portrayed more positively. Hospital human resource departments could form partnerships with nursing education programs for the purpose of conveying more favorable images of nursing via radio, television, Internet, and in community and public relations programs. State and federal grants to stimulate partnerships between hospitals and nursing education may be needed. Local community surveys could be done with the aim of determining the public's perception of nurses, and data from the surveys could help identify misunderstandings and stigmas about nursing that can guide public relations and image-building strategies.

Related to the image of nursing is the need to improve relationships with the media. During the 1990s, newspapers have focused overwhelmingly, often with nurses' help, on the negative aspects of the nursing profession. The public continues to read about hospitals' poor treatment of nurses, the "evils" of managed care, patient tragedies related to nurses, the abuse inflicted on nurses by uncaring hospital administrators and physicians, and personal injuries associated with violent patients, etc. To the public, these messages convey that nursing is not a desirable profession and, therefore, contribute to the declining aspirations of younger people to choose nursing as a career that were described in part three of this series (Staiger et al., 2000).

Increase enrollment in nursing education. One way that enrollment can be increased is by more effectively communicating the perceived benefits of a nursing career. Attention should focus on the future attractiveness of nursing by communicating to prospective students that wages are expected to increase, job security is second to none, the infrastructure supporting

the environment of nursing care will improve, and that exciting new roles and opportunities are being created. Hospitals and nursing education programs could form partnerships to influence middle school teachers and high school career counselors to stress the comparative advantages and opportunities in nursing (Bednash, 2000).

A second way that enrollment can be increased is to lower the costs (both direct costs and the time required) of nursing education. For example, access to low-interest state and federal loans, loan forgiveness programs, and grants and financial support can be increased substantially. More importantly, new approaches to education should be considered (as has been done in the teaching profession) that would shorten the time required to become a RN. Nursing educators can find ways to streamline the curriculum, make better use of distance learning, and take advantage of the Internet to lower the time it takes to complete nursing education and broaden the appeal of nursing (AACN, 1999). In addition, associate-degree programs will become increasingly important because of the shorter time required to obtain a degree.

Eliminate stigmas and barriers facing men and minorities. As discussed in part three of this series (Staiger et al., 2000), women and men are now equally interested in law, medicine, dentistry, and other fields, whereas nursing is more like primary school teaching in that it still has far more women interested than men. This lack of interest by men suggests there is some stigma attached to the nursing profession. If the root cause of this stigma (and other barriers facing men) can be identified and removed, more men would enter nursing; in fact, if men began entering nursing at the same rate as women, future shortages would be eliminated entirely.

A similar argument can be made with respect to attracting minorities into nursing — the number of minority RNs was estimated to be

only 9.7% of the workforce in 1996 (Buerhaus & Auerbach, 1999). Studies show that, on average, minority RNs (African Americans, Hispanics, Asian Americans, and Native Americans) have a greater probability of being in the workforce and work more hours per year than their white RN counterparts (Buerhaus, 1991; Buerhaus & Auerbach, 1999; Moses, 1996). The same is true for married RNs who are men. Thus, attracting more minorities and men into nursing is likely to significantly increase the number of nursing hours supplied by the RN workforce. Expanding the number of minority RNs also will enable the profession to do a better job providing culturally sensitive care to the growing number of minorities in the general population.

Develop ways to keep older RNs in the workforce. If policies to increase the flow of people into nursing are not effective and the flow into nursing is slower than the flow out, it is possible to make up the difference by extending the work life of RNs. With very large RN cohorts reaching retirement age in the near future, even getting a small percentage to work a few more years will have a relatively large impact. Thus, actions aimed at delaying their retirement should be explored. Moreover, it is important to realize that as these older RNs leave the workforce, they will take with them a great deal of the collective clinical experience and knowledge base of the nursing profession.

Hospitals can experiment with ways to retain senior RNs by offering positions as preceptors, mentors, and counselors to new graduates, or as in-house consultants to other clinical nurses. More favorable work schedules could be designed and economic incentives offered. As the social security retirement age increases to 67 by 2027, older RNs will have an economic incentive to remain in the workforce, and if employers adjust their retirement benefits accordingly, the economic incentive could be

even more appealing. Finally, because older RNs are less likely to tolerate a workplace in which they experience lack of respect by physicians, administrators, and others or unreasonable restrictions on their autonomy and control over nursing practice, hospitals should examine the culture of their organizations and remove such practices and behaviors.

Allow more foreign-educated RNs in the United States. Whether to use foreign nurse graduates (FNGs) in the future will become a central question facing policymakers in the years ahead. Because FNGs have been used to address past hospital RN shortages (Glaessel-Brown, 1998), it can be expected that many employers will gladly finance FNGs' travel to and stay in the United States when the expected shortages materialize. At the same time, ethical, economic, and quality-related arguments opposing the use of FNGs will be raised, particularly if large numbers are required. Nevertheless, given the potential size of the shortfall in the number of RNs required by the year 2020 (Buerhaus et al., 2000b), relying on FNGs to rapidly increase supply will be appealing. Thus, in anticipation of greater use of FNGs in the future (whether one agrees or disagrees with this policy), emigration policies should be examined and, at a minimum, include mechanisms to ensure that FNGs practice competently, particularly in the use of technology which, compared to many countries, plays a large role in providing clinical care in U.S. hospitals.

Actions Intended to Increase the Visibility of and Policy Interest in the Nurse Workforce

The final category of actions are those that could buttress efforts to increase supply or cope with an aging workforce by raising the visibility and attention to the nursing workforce in the public policy arena. These include conducting research on the nursing workforce and on nursing's impact on quality

of care, convening an Institute of Medicine study or special nursing commission, and capitalizing on the positive public opinion of nursing.

Conduct research on the nursing workforce and on nursing's impact on quality of care. As demonstrated by this series of articles, the forces affecting the RN workforce are numerous, complicated, and dynamic. Therefore, empirically based studies on the RN workforce and broader nurse labor market are needed to routinely track changes and identify and analyze new trends that have not been anticipated. In the future, the RN workforce is likely to receive much greater policy attention, and policymakers will need good data to guide the development of sound workforce policies.

Evidence that connects nurses to improvements in patient outcomes is also needed, so that the health care marketplace and hospital budgets will fully value the contributions of nurses. Hospitals may very well under invest in RN staffing because they do not perceive they are getting back the benefits of higher quality and improved patient outcomes.

Fortunately, several studies are underway that are likely to establish more credible evidence on the relationship between nurse staffing and patient outcomes (studies are reviewed in Buerhaus & Needleman, 2000). To the extent these studies demonstrate the link between nursing and patient outcomes, and the findings are broadly disseminated to payers, employers, and the public, then chances will increase for obtaining greater financial support to educate more RNs and improve the infrastructure supporting hospital based nursing practice — not unlike policies that have traditionally supported medical residents in teaching hospitals. Similarly, because society understands the role teachers play in shaping the lives of children and producing a more highly educated and better society, public sector investments in teachers and educational infrastruc-

ture (for example, smaller class sizes) have been significant and were, in fact, a major issue in the 2000 presidential election. Nursing must establish deeper social recognition of its importance to the health of Americans as teachers have to the education of society.

Convene an IOM study or special nursing commission. The challenge before health care leaders is to move the discussion of the implications of the aging RN workforce out of nursing and health care forums and onto the agenda of state and federal lawmakers, the media, and the broader public policy-making community. Only when the problems that have been described in this series of articles are viewed as legitimate social policy problems will it be possible to capture the public's attention, generate and shape political will, and obtain resources necessary to meaningfully address the RN workforce.

One way to elevate an issue onto the social policy agenda is to persuade Congress to request an independent assessment of the future of the RN workforce by an objective and respected body, such as the Institute of Medicine of the National Academy of Sciences. For example, the recent response to IOM's 1999 report on errors in health care ("To Err is Human") was unprecedented. This report generated massive media attention, action by the White House and Congress, development of new research priorities by the Agency for Healthcare Research and Quality, and implementation of error-reduction programs by health care associations and individual hospitals. Given the evidence now available on the reasons for and the implications of an aging RN workforce, it would be prudent for Congress to request the IOM to convene a committee to examine the nursing profession and make recommendations for change. Another approach would be to lobby Congress to create a special commission on nursing (and preferably one with a long-term tenure) under the aegis of the Secretary of Health and Human Services, not unlike the last

nursing commission in 1988. The aging and shrinking RN workforce is a problem that involves more than just nurses; it is a social problem whose implications are so broad and deep that the time has come to put it squarely on the nation's social policy agenda.

Capitalize on the positive public opinion of nursing. The nursing profession is fortunate to have a high public opinion and level of trust (Kaiser/Harvard, 1997; Sigma Theta Tau International, 1999). Although the reasons for the favorable opinion are not fully understood, nurses have enjoyed a high public opinion for many years. This is the time for nursing and other leaders to take advantage of the professions' high public opinion by communicating directly to the public about the nature of the problems confronting the workforce that have been discussed in this four-part series and describe the actions that will be required to overcome them. In a straightforward and unemotional manner, nurses should deliver messages that help the public realize that the implications of an aging RN workforce will affect them directly, either as baby boomers retire and need personal health care services for themselves, or when help is needed by parents and friends.

Concluding Comments

This four-part series on changes in the RN workforce has focused on the reasons for and the implications of the rapidly aging RN workforce and actions to address them. We have discussed the recent development of shortages in hospital intensive care units and operating rooms, the relationship between older-aged associate degree graduates and the aging of the workforce, the growth of career opportunities outside of nursing for women and the declining aspiration for a career in nursing, and offered ideas to strengthen the current and future RN workforce. The evidence suggests a not-to-distant collision between the aging and shrinking RN workforce and the increasing demand driven (among

other things) by the expanding population of Medicare beneficiaries. Therefore, actions are required *now* to prevent harmful consequences to access and quality of care.

The challenges facing the nursing profession and the broader health care industry are serious and require a serious response. Leaders in nursing must recognize that the magnitude and momentum of the demographic and social forces underpinning the aging and shrinking RN workforce are so powerful that it will be impossible for the nursing profession alone to address the long-term implications. Assistance will be needed from hospitals, physicians, policymakers, the public, and media if the problems confronting nurses are to ascend onto the national social policy agenda where, hopefully, additional resources can be obtained to ensure a strong and well-prepared professional RN workforce. §

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