

Trends in the Experiences of Hospital-Employed Registered Nurses: Results From Three National Surveys

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Introduction

This article reports highlights of findings from the 2006 National Survey of Registered Nurses (RNs) conducted in late summer 2006. This survey builds upon the authors' assessment of the state of the nursing workforce in the United States published during 2005 and early 2006 in a six-part series of articles in *Nursing Economic\$* (Buerhaus, Donelan, Ulrich, Norman, & Dittus, 2006). That assessment was based largely on comparing the results of several recent national random sample surveys: surveys of RNs conducted in both 2002 and 2004, a 2003 survey of nursing students, and a 2005 survey of hospital chief nursing officers. These surveys were carried out by collaboration of researchers at Van derbilt University Medical Center and The Massachusetts General Hospital as part of an ongoing project to evaluate the Johnson & Johnson *Campaign for Nursing's Future*. The campaign, which began in February 2002, is a major national initiative (expenditures exceeding \$30 million to date) aimed at increasing awareness of the nursing shortage, recruiting people into the nursing profession, retaining nurses in clinical practice, and increasing the capacity of the nation's nursing education programs (see www.discovernursing.com for more information).

Because we use many of the same identically worded items from previous surveys, we are able to compare the results of the 2006 national survey of RNs to the results from our earlier 2004 and 2002 national surveys. This comparison gives us some evidence to determine whether hospital-employed RNs' perceive any change in the prevalence and severity of the nursing shortage; its impact on nurses, patients, and hospitals; and whether the improvements RNs' perceived in 2004 have continued or faded.

Survey Data and Methods

Data for this analysis come from national random sample surveys of RNs conducted in 2002, 2004, and 2006. Each of the surveys were designed, pre-tested, and analyzed by our research team, and took respondents approximately 20 minutes to complete. Institutional review board approvals were obtained for using data from each survey, and we collaborated with Harris Interactive who conducted the fieldwork for each survey. Complete descriptions of the methodology for the 2002 and 2004 surveys were published previously (Buerhaus, Donelan, Norman, Ulrich, & Dittus, 2005).

2002 National Survey of Registered Nurses

This survey was funded by *NurseWeek*, a national weekly nursing publication and continuing education company, and by the American Organization of Nurse Executives. From October 24, 2001 through March 13, 2002, Harris Interactive mailed the eight-page questionnaire to a nationally representative sample of 7,600 RNs who were randomly selected from a list of all RNs licensed to practice in the United States. Response enhancements included continuing education

credits valued at \$35 and the opportunity to be entered into a lottery drawing for one of three travel vouchers for work-related travel. A total of 4,108 RNs completed the survey for a response rate of 55% (177 of the 7,600 were determined to be ineligible). The data were weighted by age and region to reflect the distribution of RNs as reported in the federal government's 2000 National Sample Survey of Registered Nurses in the United States. For the analysis reported here, we used a subset of the data that represents all hospital employed RNs who provide direct patient care (n=1,442).

2004 National Survey of Registered Nurses

The 2004 national survey of RNs was funded by Johnson & Johnson and *Nursing Spectrum* (which had acquired *NurseWeek*). The survey contained many of the same questions used in the earlier 2002 survey, and included several different questions aimed at exploring new areas and probing certain aspects of the workplace environment in greater depth.

From May 11 through July 12, 2004, Harris Interactive mailed the eight-page questionnaire to a random sample of 3,500 RNs drawn from the previously referenced *Nursing Spectrum* national database. Respondents were given the option of responding at a secure Web site or by mail, and up to five mailings were sent to non-responders to encourage participation. Response enhancement incentives included 2 hours of continuing education courses valued at \$35 and the opportunity to be entered into a lottery drawing for vouchers redeemable for travel to professional conferences. Following exclusion of cases of retired nurses or those not working at the time of the survey, we obtained a 53% response rate among eligible respondents and 1,697 usable responses. The data were weighted by age and region to reflect the distribution of RNs as reported in the federal government's 2000 National Sample Survey of Registered Nurses in the United States. For the analysis reported here, we use a subset of the data that represents all hospital-employed RNs who provide direct patient care (n=657).

2006 National Survey of Registered Nurses

The 2006 survey was funded by Johnson & Johnson and *Nursing Spectrum*. From May 24 through July 26, 2006, Harris Interactive mailed the eight-page questionnaire to a random sample of 3,436 RNs that was drawn once again from the *Nursing Spectrum* national data base. Given prior low response to the online option in this population, the survey was conducted only by mail. Up to five mailings were sent to non-responders to encourage participation. Response enhancement incentives included 2 hours of continuing education courses valued at \$35 and the opportunity to be entered into a lottery drawing for vouchers redeemable for travel to professional conferences. Following exclusion of cases of retired nurses or those not working at the time of the survey, we obtained a 52% response rate among eligible respondents and 1,392 responses were usable for analysis.

For this survey we elected not to weight the data according to the federal government's 2000 National Sample Survey of the Population of Registered Nurses. Our sample was deemed to be representative by region. More importantly, the age distribution of respondents reflected differences from the federal government's 2000 survey, but were consistent with an analysis of more recent U.S. Bureau of Census data reported by Buerhaus, Auerbach, and Staiger (2007) in this issue of the journal (see page 59). We determined that it was best not to use weights from previous government national surveys if, in fact, those weights would mask a true change in the characteristics of the nursing workforce (at the time of this analysis, only preliminary findings from the federal government's 2004 National Survey of the Population of Registered Nurses in the United States were available, including information on the weights used by this government survey). For the analysis reported here, we use a subset of the data that represents all hospital-employed RNs who provide direct patient care (n=617).

Characteristics of National Random Sample Surveys of RNs

In each of the three surveys, most hospital-employed RNs providing direct patient care are white and female, and clear majorities are married and work in hospitals located in urban and suburban areas (see [Table 1](#)). More than two-thirds are over the age of 35, with more RNs between the ages of 35 and 49 years than any other age category. The average age of RNs employed in hospitals shot up in 2006, reaching 48 years, an increase of 9 years from the average age of 39 years for hospital-employed RNs reported in 2004. As explained by Buerhaus, Auerbach, and Staiger (2007), this increase is attributed to the re-entry into the workforce of approximately 180,000 RNs over the age of 50 between 2003 and 2005. [Table 1](#) also shows that RN self-reports of their health has fluctuated, with 29% rating their health as "excellent" in both 2002 and 2006, and across the three surveys, roughly 40% of RNs rated their health as "very good," approximately 20% as "good," and less than 5% as "fair" or "poor."

Essentially the same percentage (38%) of RNs reported an associate or baccalaureate degree as the highest nursing degree received; fewer RNs in 2004 (11%) compared to 2002 (19%) reported a diploma certificate as their highest nursing education. In 2006, the mean days worked per week rose slightly to 3.7, and nearly the same proportion of RNs reported they worked 0 to 3 days as those who reported working 4 to 5 days per week. Although the mean hours worked per week fell slightly in 2006 compared to 2004, overtime hours increased by nearly 1 hour per week during this same period. In 2006, RNs reported an average hourly wage of \$32.10 for a regularly scheduled shift, a sharp increase (over 18%, not adjusted for inflation) from the \$27.10 RNs reported earning in 2004. Finally, across the three surveys most RNs reported their total annual income from working as a hospital-employed nurse ranged between \$25,000 and \$75,000.

Perceptions of the Nursing Shortage

Prevalence and Severity

Across the 6 years covered by the three surveys, large majorities of hospital-employed RNs perceived the supply of RNs was less than demand in both the United States and in their local communities. In 2006 more than nine in ten RNs (93%) perceived the supply of nurses *nationally* to be less than demand (52% "much less" and 41% "somewhat less" than demand). This is a noticeable increase compared to 2004 when only 73% of RNs surveyed said they perceived the supply of RNs across the country was less than demand (29% "much less" and 44% "somewhat less" than demand).

Figure 1 shows that majorities of RNs also perceive the supply of nurses in their *local communities* was less than demand. In 2006, 77% of RNs thought that the supply of RNs was less than demand (33% "much less" and 44% "somewhat less"). Although a large majority, the total percent of RNs who perceived supply to be less than demand in 2006 was not as great as the percent in either 2004 (84%) or in 2002 (87%). A close examination of Figure 1 shows that in 2006 significantly fewer (44%) RNs felt that the supply of RNs was "somewhat less than the demand" than in 2004 (55%). Similarly, in 2006, significantly fewer RNs (33%) perceived that the supply was "much less than demand" than in 2002 (43%). Additionally, the percent of RNs who perceived that supply was "about equal to demand" increased gradually over the three surveys, and only a fraction of RNs perceive that supply is "somewhat greater" or "much greater" than demand in their communities.

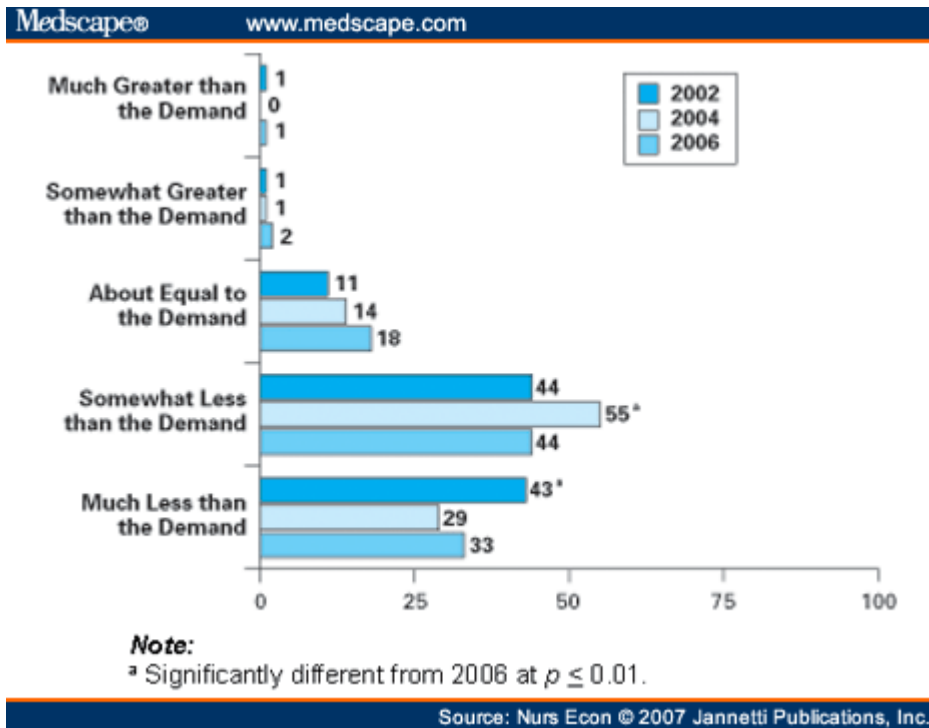


Figure 1.

Supply of Nurses in Local Community: Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2002, 2004, and 2006

In each of the three surveys, RNs were asked about the severity of the nursing shortage in the past year in the *hospital* where they had worked the most. From 2002 to 2004, RNs' perceptions of a "very serious" or "somewhat serious" shortage of nurses in hospitals decreased significantly, falling from 95% to 82%. This rate of decline did not continue in 2006, however, as 79% of RNs perceived a shortage of nurses (19% a "very serious shortage" and 60% a "somewhat serious shortage") in the hospital where they worked most during the past year.

Causes of the Nursing Shortage and Hospitals' Recruitment Efforts

In both the 2002 and 2004 surveys, RNs identified the top five reasons for the nursing shortage as "inadequate salary and benefits," "more career options for women," "undesirable hours," a "negative healthcare work environment," and "nursing not seen as a rewarding career" (see [Table 2](#)). In the 2006 survey, RNs continued to rank these same reasons in the top five causes of the shortage, although "faculty shortages in nursing schools" increased significantly as the third highest rated cause (the proportion who perceived "fewer applicants admitted to nursing schools" increased significantly as well). While still a leading factor, the role of salary decreased significantly over the 6 years covered by the three surveys: In 2002, 58% of RNs agreed that "salary and benefits" was a main cause of the shortage, far more than the 41% of RNs in 2004 and nearly twice as many as the 32% of RNs who agreed with this view in 2006. The proportion of RNs who agreed that "negative perception of the health care work environment" was a main cause of the nursing shortage also dropped significantly, from 29% in 2002 to 15% in 2006. Similarly, the percent of RNs who ranked more career options for women and undesirable hours as main causes of the shortage decreased significantly from 2002 to 2006.

In the 2004 and 2006 surveys, RNs were asked whether they had observed hospitals using recruitment strategies and if they thought any of the strategies they had observed were effective. Between 40% and 60% of RNs had observed six of the seven recruitment strategies shown in [Table 3](#), with economic strategies the most frequently observed strategy across the two surveys. Hospital recruitment strategies were observed more frequently by RNs surveyed in 2006 than in 2004, particularly "increasing advertising" (57% vs. 44%) and "sponsored career fairs or community outreach programs" (54% vs. 43%). The least frequently observed recruitment strategy was "outreach to foreign nurse graduates" which was perceived by roughly 1/4 of RNs in both surveys.

In general, the recruitment strategies used by hospitals shown in [Table 3](#) are perceived to be effective. However, fewer RNs in 2006 than in 2004 (roughly 10-20 percentage points lower) perceived that hospital recruitment strategies were effective, particularly those that "provided tuition benefit," "offered signing bonuses," "provided flexible work schedules," and "increased salaries."

RNs' Views of How to Solve the Shortage

When RNs were asked about the strategies they thought would solve the nursing shortage, [Table 4](#) shows that the vast majority (over 3/4) in all three surveys perceived that "improving the work environment" and "improving wages and benefits" would help a great deal. Compared to 2002, however, significantly fewer RNs in 2006 (though still a clear majority) agreed that these two strategies were the leading ways to resolve the shortage. Other strategies in which more than half of RNs thought would help solve the shortage included "higher status of nurses in the hospital environment" and "better hours." Across the 6 years covered by the three national surveys, just under 60% felt that "better hours" would help a great deal, whereas significantly more RNs thought that "financial aid," "increased capacity to educate and train nurses," "non-financial programs to encourage people to enter nursing," and "recruitment of men and minorities" also would help solve the shortage a great deal. Fewer RNs across the surveys (roughly one-third) thought that "use of support staff" would help solve the shortage a great deal.

Characteristics of the Work Environment

How RNs Spend Their Time

We added a new item in the 2006 survey that asked RNs how much of their time during a typical week of work is spent doing the seven items listed in [Table 5](#), and to indicate if this is "too much," "too little," or "about the right amount of time" spent on each activity. On average, during a typical work week RNs reported spending less than half of their time (41%) providing direct patient care, with 57% indicating this was "too little" time, 36% "about the right amount," and only 2% saying this was "too much" time spent on this activity. Documenting patient-related care consumed nearly one-quarter (23%) of RNs' time during a typical work week, with 30% of RNs saying this was "about the right amount" of time but 56% reported this was "too much" time spent in this activity. On average, RNs spent between 5% to 8% of their time in each of the following: locating supplies and equipment related to patient care; transporting patients; making patient-related telephone calls and obtaining prescriptions, lab results, and referrals; in meetings or activities related to quality improvement or patient safety; and, in shift changes and other handoff functions. With the exception of documenting patient-related care and locating supplies and equipment, a much higher percentage of RNs perceived that the amount of time spent in these activities was about the "right amount" of time versus those who felt that time spent was either "too much" or "too little." Only 10% of RNs perceived they spent "too much" time in quality-related activities and almost one-quarter (24%) said they spent "too little" time on this activity.

Overtime

Given the concern expressed by many RNs about working overtime hours, we asked RNs in each survey whether, in the past year, overtime hours had increased, decreased, or stayed about the same. [Table 6](#) shows that significantly fewer RNs reported the amount of overtime had increased over the years: 55% of RNs in 2002, 40% in 2004, and declining to 29% in 2006. [Table 6](#) also shows a significant increase in the percent of RNs who perceived that the amount of overtime required had remained the same over the three surveys.

In some hospitals, working overtime is voluntary or required. [Table 6](#) indicates that from 2002 to 2006, the proportion of RNs who perceived that overtime was strictly voluntary increased significantly from 46% in 2002 to 55% in 2006. Similarly, significantly fewer RNs during this same time period perceived that overtime was required in the hospitals where they worked (21% in 2002 and 14% in 2006).

Rating the Quality of the Work Setting

Our project team has been interested in assessing RNs' perceptions of the quality of the hospital workplace and whether they see any improvements being made over time. Results presented in [Table 7](#) show that across the three surveys only 25% or fewer RNs rated five characteristics of the work setting as excellent or very good: "opportunities to influence decisions about workplace organization," "recognition of accomplishments and work well done," "opportunities for professional development," "opportunities for professional advancement," and "opportunities to influence decisions about patient care." Note, however, that significantly fewer RNs in 2006 than in 2004 rated the hospital where they worked as excellent or very good with respect to the "recognition of accomplishments and work well done." In only two areas was there a significant growth in the proportion of RNs who rated their hospital as excellent or very good: "salary and benefits" and "flexibility of scheduling." And not to be overlooked, a little more than 40% of RNs rated as excellent or very good "opportunities to establish relationships with patients and their families."

Quality of Professional Relationships

When asked to rate the quality of their relationships with others in the workplace, hospital-employed RNs in all three surveys assigned their highest overall ratings to their relationships with other RNs, followed next by their relationships with physicians and nurse practitioners, and then front-line nurse managers. RNs ranked their relationships with administration and management the lowest. Overall, RNs' ratings of the quality of their relationships with each of these groups changed little over the 6 years covered by the three surveys. Roughly 20% rated their relationship with other hospital-employed RNs as "excellent," 40% "very good," about 25% as "good," less than 10% "fair," and only 1% felt their relationship with other RNs was "poor." With regard to physicians, never more than 12% of RNs rated their relationship as "excellent," approximately 30% said it was "very good," roughly 35% perceived a "good" relationship, a little under 20% said it was "fair," and less than 5% of RNs felt their relationship with physicians was "poor" in each of the three surveys. RNs rated their relationships with nurse practitioners very similar to their relationship with physicians, and rated their relationship with front-line nurse managers almost as good. Finally, RNs continued to rate their relationship with management and administration poorly in all three surveys. For example, in 2006, only 2% said they had an "excellent" relationship, 14% "very good," 29% "good," 36% "fair," and 18% said their relationship was "poor."

Plans to Leave Current Nursing Position

Results from the three surveys showed little change in RNs' plans to stay in or leave their current position: Between 54% and 60% of RNs in each of the three surveys reported they had "no plans" to leave their current position, 15% to 18% said they planned "to leave within the next 12 months," and 23% to 28% reported they planned to leave their current position "within the next 3

years." Of those in 2006 who planned to leave their position within the next 3 years, 48% said they would take a "different position in clinical patient care," 22% planned to "retire," 17% intended to "work in a non-clinical nursing position in teaching or research," 13% said they intended to "return to school to pursue additional nursing education," 13% would "take time out for family or other personal reasons," and 13% also said they would pursue a job in another profession (RNs were permitted to respond to more than one category).

Union Membership and Effects on Nursing and Patient Care

Across the three surveys, the proportion of RNs who reported that they belong to a union remained fairly stable: 21% of hospital-employed RNs reported in 2002 that they and/or others in their workplace belonged to a union, 25% in 2004, and 23% in 2006. When asked about the effect of unionization on the nursing profession, twice as many RNs (54% in 2002, 52% in 2004, and 49% in 2006) perceived the effect was "mostly" or "somewhat" positive versus those who felt the effects of unionization on the nursing profession were "mostly" or "somewhat" negative (23% in 2002, 18% in 2004, and 22% in 2006).

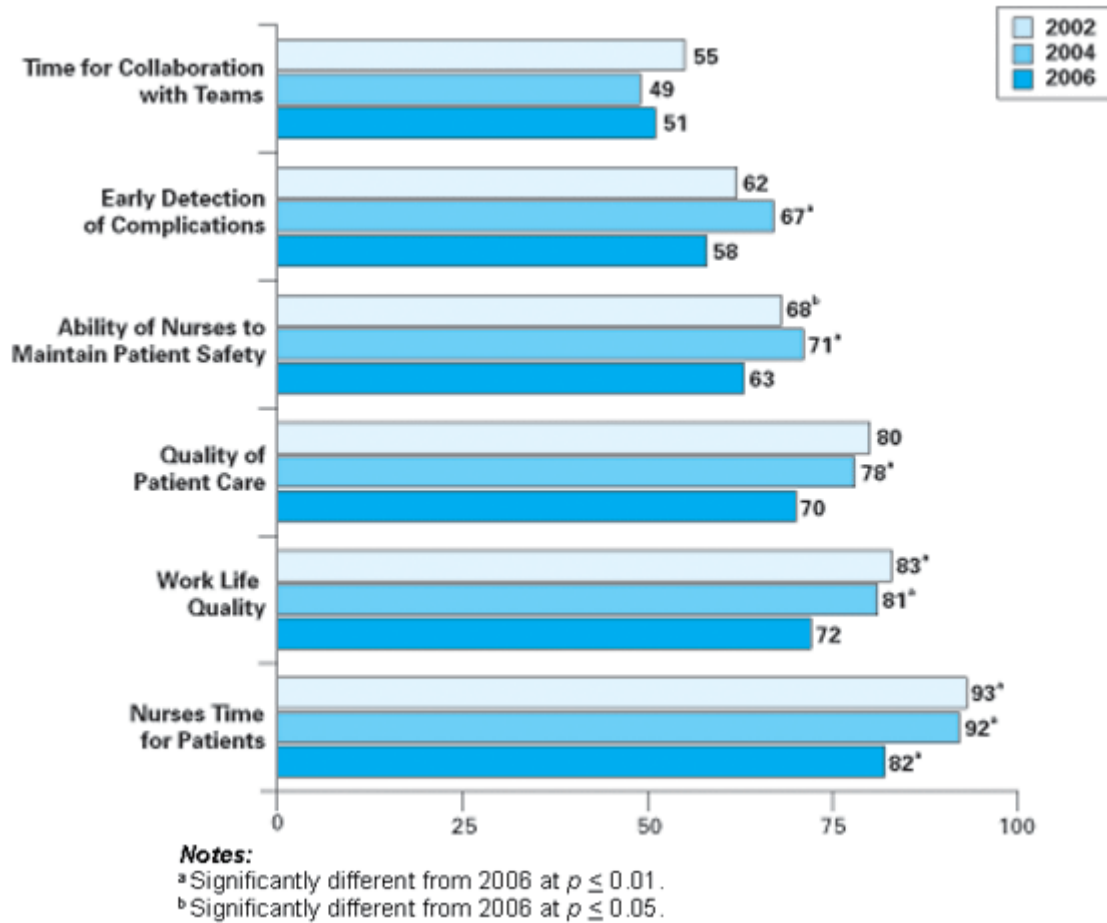
With respect to the effect of unionization on the quality of patient care, even more RNs perceived "mostly" or "somewhat positive" effects (45% in 2002, 42% in 2004, and 51% in 2006) versus those who felt the effects of unionization were "mostly" or "somewhat" negative on the quality of patient care (15% in 2002, 9% in 2004, and 15% in 2006).

Impact of Nursing Shortage

Nursing Practice and Hospital Capacity

RNs were asked if, as a result of the nursing shortage in hospitals, they had observed an increase, decrease, or no difference in the eight areas shown in [Table 8](#). With the exception of an increase in the "workload on physicians," significantly fewer RNs in 2006 than in 2004 perceived an increase in the remaining seven indicators reflecting nursing practice and hospital capacity. Despite this improvement, over half of RNs still perceived the shortage had impacted nurses, patients, and hospitals by increasing: "nurses' delayed responses to pages or calls," "staff communication problems," "patients' complaints about nursing care," "patients' wait time for surgery or tests," "workload on physicians," and a "reduction in the number of available beds" (2004, only) and "delayed discharges." In the 2006 survey, the least impacted areas affected by the current nursing shortage (reported by less than half of RNs) involved a "reduction in the number of available beds" and "discontinued or closed patient care programs."

To further assess the impact of the current nursing shortage, we asked RNs how much of a problem ("major problem," "minor problem," or "no problem") the shortage has been on six aspects of nursing practice. Figure 2, which shows only the response category "major problem," reveals that, across the three surveys, a large proportion of RNs (ranging from 49%-93%) perceived the shortage has been a major problem for all of the aspects of nursing practice assessed. Nevertheless, over the time covered by the three surveys, significantly fewer RNs perceived the shortage had been a major problem for five aspects of nursing care: the "early detection of patient complications," "nurses' ability to maintain patient safety," "quality of patient care," "quality of nurses' own work life," and the "time RNs have to spend with patients."



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Figure 2.

Percent of Hospital-Employed Registered Nurses who Perceive the Shortage Has Been a Major Problem on Nurses' Practice in 2002, 2004, and 2006

Job and Career Satisfaction

Job Satisfaction

Survey results show that most hospital-employed RNs are generally satisfied with their jobs. In the 2002 survey, 13% of RNs reported they were "very satisfied," 50% were "moderately satisfied," and 16% said they were "a little satisfied" with their present job. In the succeeding two surveys, we changed the satisfaction response categories to "very satisfied" and "somewhat satisfied." In 2004, 27% of RNs reported they were very satisfied" and 52% were "somewhat satisfied" with their jobs, similar to the responses of RNs in 2006 (29% reported they were "very satisfied" and 48% said they were "somewhat satisfied" with their present job). The largest change in satisfaction was the growth in the percent of RNs who reported they were "very satisfied" with their jobs (see Table 9).

Satisfaction Being a Nurse

RNs were asked, "Independent of your present job, how satisfied are you with being a nurse?" Nearly nine in ten RNs in all three surveys indicated some level of satisfaction with being a nurse. In the 2002 survey, 35% reported they were "very satisfied," 41% were "moderately satisfied," and 11% said they were "a little satisfied" with being a nurse. As noted above, the satisfaction response categories were changed in subsequent surveys. In 2004, 44% reported being "very satisfied" and 41% were "somewhat satisfied." Two years later, in 2006, even more RNs (55%) reported they were "very satisfied" and 48% were "somewhat satisfied" with being a nurse. Once again, the largest change in satisfaction was the growth in the percent of RNs who reported they were "very satisfied" with being a nurse (see [Table 9](#)).

Willingness to Advise a Career in Nursing

Results of the 2006 national survey of RNs confirm that hospital-employed RNs who provide direct patient care are increasingly likely to advise a qualified high school or college student to pursue a career in nursing. In 2002, a total of 59% said they would advise nursing (14% "definitely would" and 45% "probably would") but, in 2004, an even larger total (72%) said they would advise nursing (31% "definitely would" and 41% "probably would") to a qualified high school or college student. In the most recent survey, these sentiments increased once again, as 80% of RNs in 2006 reported they would advise a career in nursing (fully 42% indicated they "definitely would" and 38% said they "probably would") advise a career in nursing to a qualified high school or college student.

Discussion

This study presents a comparison of the results of three national random sample surveys of RNs conducted in 2002, 2004, and 2006. By using many of the same identically worded questions and administering the surveys every 2 years, these data provide a running snapshot of the experience of hospital-employed RNs during the first half of the current decade. Overall, survey results point to several areas where RN perceptions have not changed appreciably during the past 6 years: the existence of a nursing shortage caused by inadequate wages and working conditions; desire to achieve a higher status in hospitals; need to improve the work setting; opportunities to influence the organization of the workplace and decisions affecting patient care; opportunities to develop and advance professionally; quality of professional relationships; union membership and affects of unionization; and RNs' plans to leave their nursing position. Areas that seem to be trending positively include decreased impact of the nursing shortage on care processes, hospital capacity, ability of nurses to provide care, and quality of care. Areas of improvement observed by RNs over the past 6 years include the amount and kind of overtime, satisfaction with current job, satisfaction with being a nurse, and willingness to advise a qualified high school or college student to pursue a career in nursing.

Concluding Comments

Given reports of a global shortage of nurses, forecasts of an aging and eventually smaller nursing workforce in the United States, projections of a large nursing shortage developing in the United States over the next decade, and no national policy or coherent data collection strategy to routinely assess the nursing workforce in the United States, the comparative results of these three national surveys reported in this article provide the only known source of data describing the evolving state of the nursing workforce over time in this country (Auerbach, Buerhaus, & Staiger, 2007). These national random sample surveys expose the harmful effects of a lingering shortage of nurses and make plain that much work remains to be done to improve the experiences of hospital-employed RNs. At the same time, nurses and others involved in hospital patient care should be encouraged by the improvements that have been made in recent years, despite the presence of a nursing shortage.

Whether the current shortage is resolved and further improvements in the work environment of RNs are made in the years ahead will heavily influence whether the nursing workforce in the United States grows stronger over time, or weakens and nurses and hospitals find that they are unable to meet the multiple and substantial challenges an aging society will place upon them in the next decade. Increasing the capacity of nursing education programs, developing innovative ways to retain older RNs in the workforce, and improving the hospital workplace continue to be among the most pressing challenges confronting the nurse workforce.

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Table 1. Characteristics of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2002, 2004, and 2006

Characteristics	2002 N = 1,442	2004 N = 657	2006 N = 617
Gender			
Female	94%	93%	94%
Male	6%	7%	6%
Age			
Mean age	41	39	48
Age categories			
Less than 25 years	2%	4%	2%
26-34 years	28%	24%	10%
35-49 years	51%	55%	40%
50-60 years	17%	15%	37%
Over 61 years	2%	2%	8%
Race			
White	84%	83%	77%
Black	4%	4%	5%
Asian/Pacific Islander	5%	5%	7%
Native American	<1%	<1%	<1%
Mixed racial background	1%	2%	1%
Other	1%	<1%	<1%
Hispanic		3%	3%
Marital Status			
Married	71%	68%	69%
Single, never married	12%	12%	10%
Divorced/separated/widowed	14%	15%	17%
Living with partner	2%	1%	3%
Highest Degree Received			
Associate degree in nursing	38%	38%	*
Diploma in nursing	19%	11%	*
Baccalaureate degree in nursing	38%	39%	*
Masters degree in nursing	5%	2%	*
Doctorate in nursing	<1%	0	*
Health (self-report)			
Excellent	29%	39%	29%
Very good	43%	40%	42%
Good	24%	17%	23%
Fair	3%	4%	4%
Poor	<1%	<1%	<1%
Employment			
Mean days worked per week	*	3.5	3.7
Mean hours worked per week	*	36.3	35.8
Mean overtime hours worked per week	*	27.1	5.2
Mean hourly wage	*		\$32.10
Days Worked per Week			
0-3 days	46%	53%	43%
4-5 days	50%	42%	49%
6-7 days	<1%	3%	3%
Income Working as a RN			
Less than \$25,000	10%	6%	4%
\$25,000-\$49,000	59%	41%	25%
\$50,000-\$74,000	25%	38%	44%
\$75,000-\$99,000	2%	7%	17%
\$100,000-\$124,000	1%	1%	5%
More than \$125,000	<1%	1%	1%
Location of Work Setting Where RN Works			
Urban	49%	52%	48%
Suburban	34%	36%	35%
Rural	16%	12%	16%

Notes:

* Options not presented to respondent

Table 2. Main Reasons for the Nursing Shortage, Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2002, 2004, and 2006

Medscape®		www.medscape.com		
Reasons for the Nursing Shortage	2002 (%)	2004 (%)	2006 (%)	
Salary and benefits	58 ^a	41 ^a	32	
More career options for women	44 ^a	32	30	
Faculty shortages in nursing schools	*	11 ^a	26	
Undesirable hours	38 ^a	27	24	
Negative perception of the health care work environment	29 ^a	15	15	
Nursing not seen as a rewarding career	*	26 ^b	21	
Nursing not a respected profession	*	17	14	
Lack of qualified students pursuing nursing as a career	15	12	13	
Fewer applicants admitted to nursing schools	7	8 ^b	12	

Notes:

* Options not presented to respondent.

^a Significantly different from 2006 at $p \leq 0.01$.

^b Significantly different from 2006 at $p \leq 0.05$.

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Table 3. Employer Efforts to Improve Recruitment: Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2004 and 2006

Medscape® www.medscape.com		2004		2006	
In the past year, to the best of your knowledge, has your employer made any deliberate efforts to improve recruitment of nurses to your place of work? If yes, was the strategy effective?	Had Observed	Effective Strategy	Had Observed	Effective Strategy	
	(%)	(%)	(%)	(%)	
Provided tuition benefits	57	72 ^b	57	57	
Offered signing bonuses	50	65 ^b	51	44	
Increased advertising	44 ^a	53	57	44	
Sponsored career fairs or community outreach programs	43 ^a	55	54	46	
Provided flexible work schedules	41	76 ^b	46	66	
Increased salaries	40	68 ^b	45	57	
Outreach to foreign nurse graduates	24	35	26	50	

Note:

^a Significantly different than "had observed" in 2006 at $p \leq 0.01$.

^b Significantly different that "effective strategy" in 2006 at $p \leq 0.01$.

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Table 4. Strategies to Solve the Shortage: Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2002, 2004, and 2006

Medscape® www.medscape.com		Percent Who Think Each Strategy Would Help Solve the Nursing Shortage "A Great Deal"		
Strategies to Solve Shortage	2002	2004	2006	
Improved working environment	89 ^a	86 ^a	79	
Improved wages and benefits	88 ^a	85	82	
Higher status of nurses in the hospital environment	74	74	71	
Better hours	56	58	55	
Financial aid	32 ^a	40	38	
Increased capacity to educate and train nurses	40 ^a	47	52	
Programs (non-financial) to encourage people to enter the field of nursing	20 ^a	24	27	
Use of support staff for RNs	28	35	32	
Recruitment of men and minorities	19 ^b	20	24	

Notes:

^a Significantly different from 2006 at $p \leq 0.01$.

^b Significantly different from 2006 at $p \leq 0.01$.

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Table 5. How Nurses Spend their Time During a Typical Work Week: Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2006

Medscape®		www.medscape.com		Percent Reporting this Is...	
Activities	Percent of Time During Work Week	Too Much Time	Too Little Time	About the Right Amount of Time	
Direct patient care, including hands on care, patient/family teaching, and discharge planning	41	2	57	36	
Patient care related notes and documentation	23	56	8	30	
Locating supplies and equipment related to patient care	8	45	2	46	
Transporting patients	5	19	3	64	
Patient-related telephone calls (prescriptions, lab results, referrals)	8	26	6	59	
Meetings or activities related to quality improvement or patient safety	7	10	24	56	
Shift changes and other hand off functions	7	14	5	70	

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Table 6. Amount and Type of Overtime Required: Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2002, 2004, and 2006

Medscape®		www.medscape.com		
Amount and Type of Overtime	2002 (%)	2004 (%)	2006 (%)	
In the past year, has the amount of overtime required of you...				
Increased	55 ^a	40 ^a	29	
Remained the same	38 ^a	49 ^a	58	
Decreased	6 ^b	12	10	
At your place of employment is working overtime...				
Strictly voluntary	46 ^a	61	55	
Voluntary but it feels like it is required	33	26	30	
Required	21 ^a	14	14	

Notes:
^a Significantly different from 2006 at $p \leq 0.01$.
^b Significantly different from 2006 at $p \leq 0.05$.

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Table 7. Rating the Quality of Current Work Setting: Perceptions of Hospital-Employed Registered Nurses Working in Direct Care Positions in 2002, 2004, and 2006

Medscape®		www.medscape.com		
Characteristics of Work Setting	2002 Excellent or Very Good (%)	2004 Excellent or Very Good (%)	2006 Excellent or Very Good (%)	
Your salary and benefits package	16 ^a	25	28	
The flexibility of scheduling	31 ^b	36	36	
Opportunities to influence decisions about workplace organization	15	17	17	
Recognition of accomplishments and work well done	21	38 ^a	18	
Opportunities for professional development	17	22	20	
Opportunities for professional advancement	17	16	16	
Opportunities to influence decisions about patient care	23	25	24	
Opportunities to establish relationships with patients and their families	43	46	43	

Note:
^a Significantly different from 2006 at $p \leq 0.01$.
^b Significantly different from 2006 at $p \leq 0.05$.

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Table 8. Impact of Nursing Shortage: Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2004 and 2006

Medscape®		www.medscape.com	
In the past year, have you observed any of the following as a result of nursing shortages in the hospital?	2004	2006	
	Percent Observing an Increase	Percent Observing an Increase	
Delayed response to pages or calls	89 ^a	72	
Staff communication problems	88 ^a	72	
Patients' complaints about nursing care	87 ^a	69	
Reduced number of available beds	81 ^a	34	
Patients' wait time for surgery or tests	75 ^a	60	
Delayed discharges	72 ^a	64	
Workload on physicians	53	51	
Discontinued or closed patient care programs	42 ^a	35	

Note:

^a Significantly different from 2006 at $p \leq 0.01$.

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Table 9. Job and Career Satisfaction: Perceptions of Hospital-Employed Registered Nurses Providing Direct Patient Care in 2002, 2004 and 2006

Medscape®		www.medscape.com		
Percent Reporting They Are Very Satisfied With...	2002	2004	2006	
Current job	13 ^a	27	29	
Being a nurse	35 ^a	44 ^a	55 ^a	

Note:

^a Significantly different from 2006 at $p \leq 0.01$.

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Sidebar: Executive Summary

In an analysis of surveys conducted in 2002, 2004, and 2006, RN responses reveal perceived trends in aspects of the labor shortage and its effect on the work environment, quality of care, and their own professional outlook.

The 2006 data revealed the highest rate (93%) of RNs perceiving that overall demand for nurses is less than supply; however, these perceptions were less severe in their local communities than was reported in 2004.

While low wages rank highest as a causative factor of the shortage, the percent of RN agreement with this cause has dropped considerably since 2002.

The 2006 survey data includes a new assessment of how RNs spend their time at work and if this time is appropriate including functions like direct care, documentation, and time with families.

Only 25% of RNs rated Magnet-like characteristics of their hospital highly such as aspects of autonomy, opportunity for professional advancement, and recognition.

While improvements are noted since 2004, RNs still perceive the shortage as causing delays in care, patient complaints, as well as interfering with staff communication.

While improvements in some aspects of RN perceptions have improved in the short-term, the absence of a coordinated national strategy will make significant and sustained improvement in these issues challenging.

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