

# The Nursing Shortage and Potential Solutions: An Overview

Beth Ulrich



## The Nursing Shortage

The most recent demographic data on nurses in the United States comes from the National Sample Survey of Registered Nurses done in 2000 (USDHHS, 2000). The National Sample Survey is conducted every 4 years by the Division of Nursing at the U.S. Department of Health and Human Services (USDHHS). The results of the National Sample Survey conducted in March 2000 estimated that 2,694,540 persons were licensed as Registered Nurses (RNs) and living in the United States, with an estimated 81.7% of these RNs employed in nursing (71.6% full time and 28.4% part-time). Of concern is the demonstrated slowing rate of growth in the absolute number of RNs, which dropped from 2% to 3% per year in past years to just over 1% per year from 1996 to 2000. The result is a nursing workforce with

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*Successfully solving the nephrology nursing shortage will require multiple strategies on national and local levels. Retaining current nephrology nurses is a key strategy. In addition, we, as a specialty, must help recruit people into nursing, and recruit student nurses and graduate nurses into the field of nephrology nursing. This article will describe the national nursing shortage and discuss how to create work environments that promote retention and satisfaction.*

an average age of 45.2 years, with only 9.1% under the age of 30 (as compared to 1980 when 25.1% of RNs were under 30).

While the overall ratio of employed RNs per 100,000 population was 782 per 100,000 in 2000, it is important to note that RNs are not evenly distributed throughout the United States (see Table 1). For example, states in the northeast portion of the country have RN to population ratios as high as 1675 RNs per 100,000 in the District of Columbia and 1194 RNs per 100,000 in Massachusetts, while states in the Southwest and West have ratios as low as 520 RNs per 100,000 in Nevada, 544 RNs per 100,000 in California, and 606 RNs per 100,000 in Texas. In addition, the percentage of RNs employed in nursing and the percentage of RNs employed full time varied widely by state.

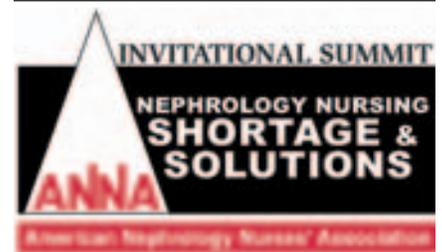
Based on the information about RN demographics as well as information on the future health needs of the U.S. population, the USDHHS has projected the supply, demand, and shortages of RNs until 2020 (USDHHS, 2002). These vary on a state-by-state basis, but nationwide, the demand for RNs is projected to exceed the supply by 149,387 in 2005, 275,215 in 2010, 507,063 in 2015, and 808,416 in 2020.

The nephrology nursing shortage is a subset of the larger shortage. Successfully resolving the current and future nephrology nursing shortage will require multifaceted strategies that address recruiting people into the nursing profession, recruiting students and graduate RNs into nephrol-

ogy nursing, and, equally as important, retaining current nephrology nurses by creating work environments that promote retention and satisfaction.

## Nurses' Views On The Shortage and Potential Solutions

One of the most detailed national surveys on registered nurses' career intentions and their views of the work environment was conducted by NurseWeek Publishing (NW) and the American Organization of Nurse Executives (AONE) (NurseWeek Publishing, 2002). The survey was performed for NW and AONE by Harris Interactive Research. A randomized national sample of 7,600 RNs was generated from a list of RNs licensed to practice nursing in the U.S. Nurses were contacted via mail, and free CEU and chances to win travel certificates were offered as incentives. The survey had a 55% response rate with demographics similar to those found in the National Sample Survey. The results of the NW/AONE survey offer valuable information on the shortage and potential solutions from nurses themselves.



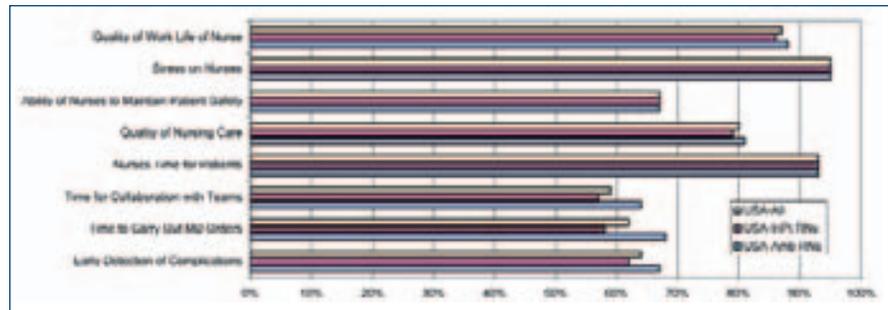
**Table 1**  
**Employed Nurses Per**  
**100,000 Population**

Area	Employed RNs Per 100,000 Population
United States	782
New England	1075
Middle Atlantic	885
South Atlantic	788
East South Central	815
West South Central	650
East North Central	831
West North Central	975
Mountain	654
Pacific	596

**Nurses' views on the impact of the nursing shortage.** Nurses in the NW/AONE survey were asked how much of a problem they thought the shortage had been in certain areas. The response options were 'not a problem,' 'a minor problem,' and 'a major problem.' The results are shown in Figure 1. Ninety-five percent of the respondents said that the shortage has been a major problem for stress on nurses and 87% said it has been a major problem with the quality of work life of nurses.

The amount of time nurses have to devote to each of their patients has been a major problem created by the shortage according to 93% of the respondents and 80% believe the shortage has been a major problem for the quality of patient care provided by nurses. The ability of nurses to maintain patient safety was cited as a major problem by 67% of the respondents and a minor problem by 28%. This is a big area of concern as patient safety is the most basic tenet of care. Several studies have shown an association between an increased incidence of infections and decreased RN care. The American Nurses Association (1997) reported that increased percentages of RN hours of care were

**Figure 1**  
**Nurses Say The Shortage Is A Major Problem In...**



**Source:** Adapted from NW/AONE National Survey of Registered Nurses.

associated with lower infection rates. Robert et al. (2000) found that blood stream infections increased when regular RN to patient ratios were reduced and when the ratio of pool and registry nurses to patients increased. Jackson, Chiarello, Gaynes, and Gerberding (2002) reviewed studies concerning infections and staffing and found a positive association between a higher RN workforce and fewer infections. Nurse safety is also a concern. Recent research by Clark, Sloane, and Aiken (2002) has also shown that the likelihood of needlestick injuries was two to three times higher in units with lower nurse staffing than in those with higher nurse staffing.

A full 64% of the nurses responding to the NW/AONE survey said that the shortage has been a major problem in the early detection of patient complications by nurses (and 30% said it has been a minor problem). Needleman, Buerhaus, Mattke, Stewart, and Zelevinsky (2002) have shown both a higher number of registered nurse hours per day and a higher proportion of total hours of care per day provided by RNs are associated with improved patient outcomes in both medical and surgical patients. One particular area of study, failure to rescue, was defined as "the death of a patient with one of five life-threatening complications – pneumonia, shock or cardiac arrest, upper gastrointestinal bleeding, sepsis, or deep vein thrombosis – for which early

identification by nurses and medical and nursing interventions can influence the risk of death." (pp. 1716-1717) Aiken, Clarke, Sloane, Sochalski, and Silber (2002) also found a correlation in surgical patients between high patient-to-nurse ratios and higher risk-adjusted 30-day mortality and failure to rescue rates. With the large number of co-morbidities experienced by many CKD patients and the fast fluid and electrolyte shifts that occur during hemodialysis procedures, failure to rescue is also a potentially serious problem in renal care, especially in the absence of an adequate number of nephrology RNs.

Respondents to the NW/AONE survey also said that the shortage was a problem in the amount of time nurses have to collaborate with other team members. Collaboration and communication are important to nurses' job satisfaction as well as to patient outcomes. In over 2000 sentinel events reported to the JCAHO, the root cause of the majority was identified as communication (JCAHO, 2003). Knaus, Draper, Wagner, and Zimmerman (1986) completed one of the earliest studies of the effects of working together, showing that the degree of coordination of intensive care significantly influenced its effectiveness. In 1987, Draper also reported that effective communication between ICU nurses and doctors was associated with better quality of care. This was further substantiated by Baggs, Ryan, Phelps, Richeson, and

**Table 2**  
**Nurses' Views on How To Solve The Nursing Shortage – Percent responding “A Great Deal” to each item**

	% Total	% age 18-34	% age 35-44	% age 45-54	% age 55+	% White	% Non-White
Improved working environments	88	91	89	89	82	87	91
Improved wages and benefits	83	92	86	83	72	82	87
Higher status of nurses in the hospital environment	74	75	73	74	72	74	70
Better hours	61	58	60	63	60	61	64
Financial aid to encourage people to enter the field of nursing	34	35	30	35	39	32	51
Increased capacity to educate and train nurses	40	46	41	37	39	37	61
Recruitment of more men and minorities into nursing	19	19	17	21	20	17	33
Programs (non-financial) to encourage people to enter the field of nursing	21	20	19	23	25	19	40
Use of nurses' aides, LPNs/LVNs, and others as support staff to RNs	29	36	24	28	30	27	40

Source: Adapted from NW/AONE National Survey of Registered Nurses.

Johnson (1992), who showed that the patient-predicted risk of negative outcomes decreased from 16% when the nurse reported no collaboration in decision-making to 5% when the process was fully collaborative and by Baggs et al. (1999) showing that medical ICU nurses' reports of collaboration was positively associated with patient outcomes.

**Nurses' views on solving the shortage.** Respondents to the NW/AONE Survey were also asked to what degree each of a list of potential solutions would help solve the nursing shortage, with a three-point response scale including 'not at all,' 'somewhat,' and 'a great deal.' Eighty-eight percent of the respondents indicated that an improved working environment would help solve the current nursing shortage 'a great deal.' This was followed in order of priority by improved wages and benefits, higher status of nurses in the hospital environment, and better hours. As can be seen in Table 2, there were some dif-

ferences in response by age and by ethnicity, but the top four are constant for all groups.

### Nurses' Views On Career and Job Satisfaction

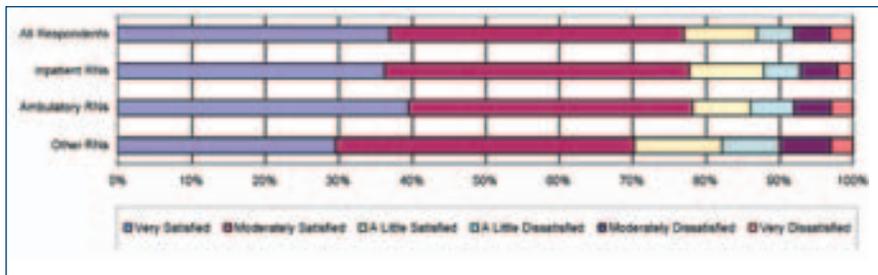
For the first time, in 2000, the National Sample Survey of RNs asked respondents to rate their level of job satisfaction. The NW/AONE study requested the same information, but first asked nurses to assess their level of satisfaction, independent of their current jobs, with being a nurse. Response options were on a 5-point scale ranging from 'very satisfied' to 'very dissatisfied.' Thirty-seven percent said that they were very satisfied with being a nurse and another 40% said they were moderately satisfied (see Figure 2). Only 3% said that they were very dissatisfied and 5% said they were moderately dissatisfied. Small variations were noted based on work setting, but on the whole, the vast majority of nurses are satisfied with being nurses.

The nurses were then asked to rate their satisfaction with their present jobs using the same 5-point scale. Twenty-one percent were very satisfied and 50% were moderately satisfied; 4% were very dissatisfied and 8% were moderately dissatisfied (see Figure 3). This compares with the National Sample Survey results in which 69.5% reported being satisfied with their current position (USDHHS, 2000). Both the NW/AONE survey and the National Sample survey found variations in satisfaction based on work setting. In both studies, nurses in ambulatory settings reported higher satisfaction levels than did those in other settings.

### Nurses' Views On The Work Environment

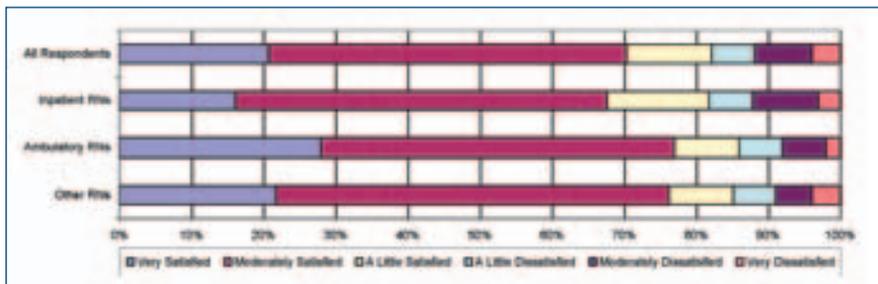
The current work environment has done much to contribute to the problem of retaining RNs in the work force as well as recruiting people into nursing. The NW/AONE survey asked extensive questions about nurses' views on the work environment.

**Figure 2**  
How Satisfied Are You with Being a Nurse?



Source: NW/AONE National Survey of Registered Nurses.

**Figure 3**  
How Satisfied Are You With Your Present Job?



Source: NW/AONE National Survey of Registered Nurses.

In addition in December 2002, ANNA conducted a membership survey. The ANNA Generational Synergy Ad Hoc Committee, seeking to determine if there were generational differences in perceptions of the nephrology work environments, included the work environment questions asked in the NW/AONE survey in the ANNA Membership Study. With four generations of nurses practicing in the work environment at one time, the committee believed that successfully recruiting, retaining, and working with members of different generations requires understanding and respecting the values and strengths of each generation. By obtaining information on how nephrology nurses view the work environment, we could determine work environment issues of nephrology nurses and better understand areas perceived more positively by nephrology nurses that could be used

to recruit new nephrology nurses. For the purposes of this study, generational groups were defined as Veteran Generation – born 1922 to 1942, Baby Boomer Generation – born 1943 to 1959, Generation X – born 1960 to 1979, and the Millennial Generation – born 1980 to 2000.

For the ANNA Membership Survey, 2500 surveys were sent to a random sample of ANNA members with a resulting response rate of 28% (ANNA, 2003). Data from the membership survey can only provide the views of ANNA members. Ideally, it would be best to have the information on work environment gleaned from this survey come from a random sample of all nephrology nurses, but no composite list of all nephrology nurses currently exists from which to obtain such a sample. Respondents to the ANNA Membership Survey did include a geographically diverse sample of RNs representing all nephrology

nursing subspecialties. Additional information on nephrology nurses who work in freestanding dialysis units is available in the study performed by the ANNA Professional Practice Committee (Thomas-Hawkins, Denno, Currier, & Wick, 2003).

### Work Environment – Part One.

In the first set of work environment questions, nurses were asked to indicate their level of agreement or disagreement with a set of statements on a 4-point scale ranging from ‘strongly agree’ to ‘strongly disagree’ (see Figure 4).

**Job security.** It is no surprise, given the nursing shortage, that 75% of the NW/AONE respondents agreed with the statement “My current position provides me with adequate job security.” However, 91% of the ANNA survey respondents agreed with the statement and more of the ANNA respondents strongly agreed with the statement.

**Job stress.** Despite the sense of job security, nurses still say that their jobs are very stressful. Fifty-nine percent of the NW/AONE respondents agreed with the statement “My job is often so stressful that I feel burned out.” The numbers were quite similar in the ANNA responses.

**Emphasis on patient care.** ANNA survey respondents were much more likely to agree with the statement “Emphasis on patient care is a priority at my organization,” with 90% expressing agreement as compared to 79% of the NW/AONE respondents.

**Nonnursing tasks.** About 60% of the NW/AONE and ANNA survey respondents agreed with the statement “My job involves so many non-nursing tasks that little time remains for nursing.” This supports the data of Aiken et al. (2001), who in their study of hospital care in five countries, asked nurses to report on the types of tasks they had performed during their last shift of work. The results showed that nurses spent a fair amount of their time delivering and retrieving food trays; doing housekeeping

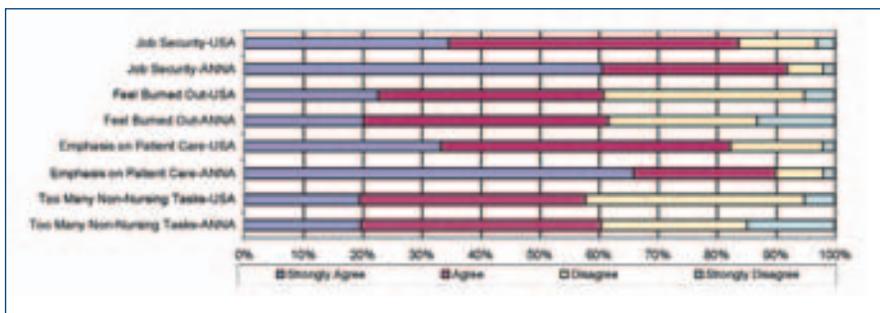
duties; transporting patients; and ordering, coordinating, or performing ancillary services while having to leave undone necessary nursing tasks such as oral hygiene, skin care, teaching patients or family, comforting/talking with patients, developing or updating care plans, and preparing patients and families for discharge.

Clearly using nurses for nonnursing tasks is not the best use of their knowledge and expertise and it is very expensive. Patients who do not receive adequate nursing care, including teaching and discharge planning, are at an increased risk for postdischarge problems. In studying RNs working in freestanding dialysis units, Thomas-Hawkins et al. (2003) found that only 45% of the RNs responding to their survey agreed that there were opportunities to discuss patient care problems with other nurses and only 40% agreed that there were adequate support services to allow RNs to spend time with their patients.

In addition, nonnursing tasks involving paperwork continue to increase. An American Hospital Association (AHA) study on paperwork in 2001 found that hospital workers spent an average of 1 hour on paperwork for every hour of emergency department care, 36 minutes of paperwork for every hour of direct care, and 48 minutes of paperwork for every hour of home care. This study was conducted before the recent Health Insurance Portability and Accountability Act (HIPAA) regulations were enacted – regulations that have added additional paperwork to an already overburdened system. Dialysis adds even more paperwork. Nurses have become increasingly responsible for the direct care of paper as well as the direct care of patients.

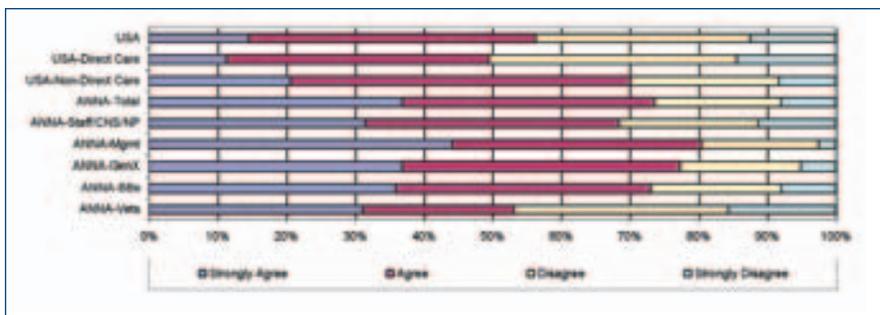
**Personal and family life.** Nurses were asked to indicate their agreement with the statement “Management recognizes the importance of my personal and family life.” Fifty-four percent of the nurses in the NW/AONE survey agreed with the statement compared to 74% of those in the ANNA survey (see Figure 5). In the nation-

**Figure 4**  
**Nurses’ Views on the Work Environment, Part 1**



Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Figure 5**  
**Management Recognizes the Importance of My Personal and Family Life**



Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

wide NW/AONE survey, variations in degree of agreement were noted between nurses who were in direct care positions and those who were in other positions. In the ANNA survey, 80% of nurses who were in management positions agreed with the statement, while only 69% of those in direct care agreed. There were also generational differences for ANNA nurses with members of the Veteran generation expressing less agreement.

**Work Environment – Part Two.**

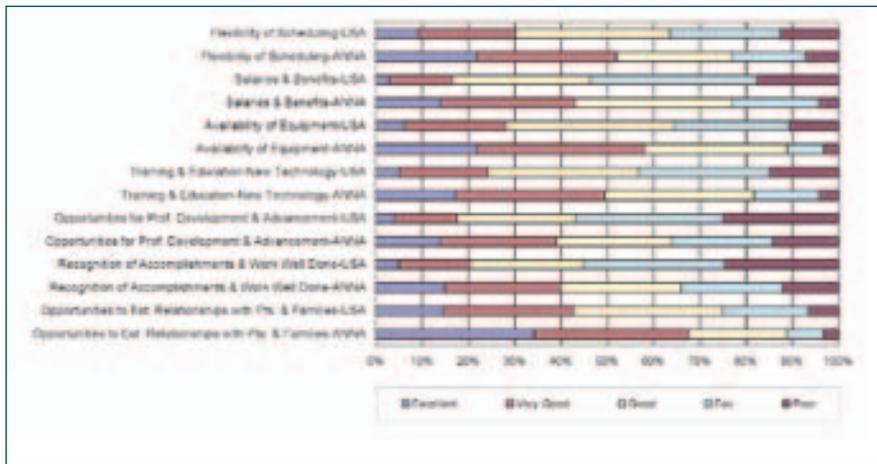
A second set of work environment items asked nurses in the NW/AONE and ANNA surveys to rate the quality of their current work settings in several areas on a 5-point scale ranging from excellent to poor. In all instances, ANNA survey respondents

rated the items higher than did the nurses in the NW/AONE survey. The results are shown in Figures 6 and 7.

**Flexibility of scheduling.** Twenty-nine percent of the NW/AONE respondents rated the flexibility of scheduling as excellent or very good compared to 52% of ANNA survey respondents. This may be at least partially due to the work schedules in dialysis units when compared to those in hospitals.

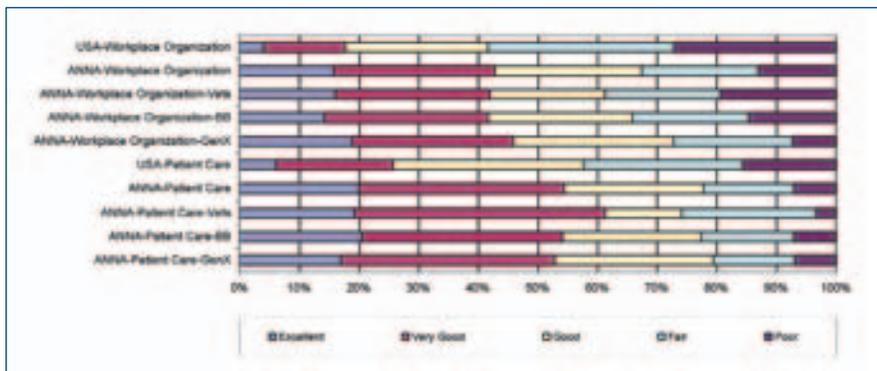
**Salaries and benefits.** The quality of salaries and benefits were rated lowest in the NW/AONE survey with only 16% rating them as excellent or very good. They were rated higher in the ANNA survey, however, with only 43% rating them as excellent or good, there is much room for improvement.

**Figure 6**  
Nurses' Views on the Work Environment, Part 2



Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Figure 7**  
Opportunities to Influence Decisions



Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Equipment – availability, training, and education.** Both the availability of appropriate equipment and the training and education provided in using new technology were rated better by ANNA nurses.

**Opportunities for professional development and advancement.** Likewise, opportunities for professional development and advancement were also rated higher by ANNA nurses. It should be noted, however, that 36% of the ANNA nurses rated the quality as only poor

or fair, indicating a relatively high level of dissatisfaction.

**Recognition.** While 40% of ANNA nurses rated the quality of recognition of accomplishments and work well done as excellent or very good, the 34% who rated it as poor or fair are of major concern.

**Relationships with patients and families.** A major advantage can be seen in nephrology nursing in the response to the item concerning opportunities to establish relationships with patients and families.

Survey data indicates that the nephrology nurses in the ANNA survey rate the quality of this item much higher (67% rating it excellent or very good vs. 41% of the NW/AONE survey respondents).

**Opportunities to influence decisions.** Opportunities to influence decisions are important to feelings of respect, recognition, and autonomy. Shared decision-making, collegial nurse-physician relationships, and collaboration have all been shown to contribute to higher RN satisfaction and better patient outcomes. Nurses were asked to rate their opportunities to influence decisions about the workplace organization and their opportunities to influence decisions about patient care.

Twice as many ANNA nurses compared to the national sample of nurses in the NW/AONE survey rated their opportunities to influence decisions about the workplace organization as excellent or very good (43% vs. 17%) (see Figure 7). There were slight generational differences, with ANNA members of Generation X rating their influence opportunities marginally higher. The same general ratings held true for opportunities to influence decisions about patient care (54% vs. 25%), but there were some small generational differences.

**Professional relationships.** Nurses were asked to rate the quality of working relationships between nurses and nurses, nurses and physicians, and nurses and management. The ratings of the nurse to nurse relationships were similar in both surveys, but there was a distinct difference in the ratings of relationships between nurses and physicians (see Figure 8). Sixty-nine percent of the nephrology nurses rated the nurse/physician relationships as excellent or very good compared to only 40% of the nurses in the NW/AONE survey.

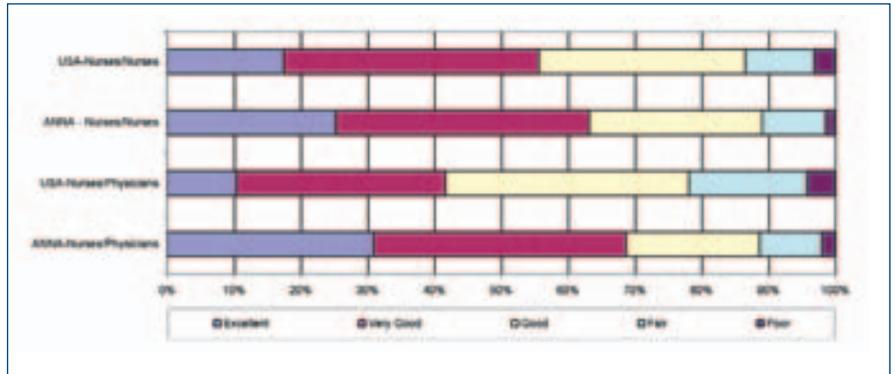
Rosenstein (2002) conducted a study in a group of community hospitals in the western part of the U.S. on how nurses, physicians, and executives viewed nurse/physician relationships, disruptive physician behavior (defined

as any inappropriate behavior, confrontation, or conduct, ranging from verbal abuse to physical and sexual harassment), and the response to such behavior and found that the interactions between nurses and physicians strongly influence the morale of the nurses. Figure 9 shows several of the items from the survey and the average responses from the three groups to each item on a 10-point scale with 10 being the most positive response. The differences in the responses from the nurses and the physicians to all questions were statistically significant ( $P < 0.01$ ). In the two questions regarding the support of nurses in nurse-physician conflicts, nurses rated the support of administration and physicians much lower than did the physicians and executives.

As for the relationships between nurses and management, again, ANNA respondents rated them higher than did the nurses in the nationwide sample (see Figure 10). There is, however, a striking difference between how ANNA nurses in management positions and ANNA nurses in direct care rate the relationships, indicating a likely disconnect between management and staff. There are also notable generational differences in how the relationships between nurses and management are perceived.

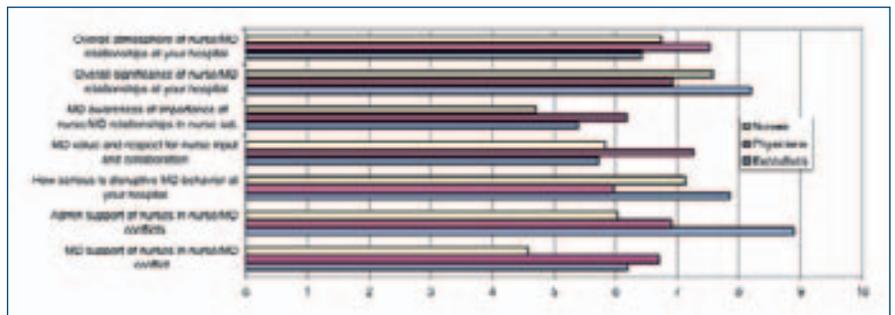
**A safe work environment.** Nurses should be able to expect a safe work environment. In the NW/AONE survey, nurses were asked in the past year, in their work as a nurse, whether they had personally experienced exposure to chemotherapeutic agents, exposure to bloodborne pathogens (including needle sticks), or back or musculoskeletal injuries. Fourteen percent of the nurses reported exposure to chemotherapeutic agents, 31% reported exposure to bloodborne pathogens, and 34% reported experiencing back or musculoskeletal injuries. In addition to the potential health problems related to all of these safety issues, the latter is also of concern because many of these injuries are not reported, resulting in compounded and ultimately more debilitating injuries later.

**Figure 8**  
Relationships: Nurses and Nurses, Nurses and Physicians



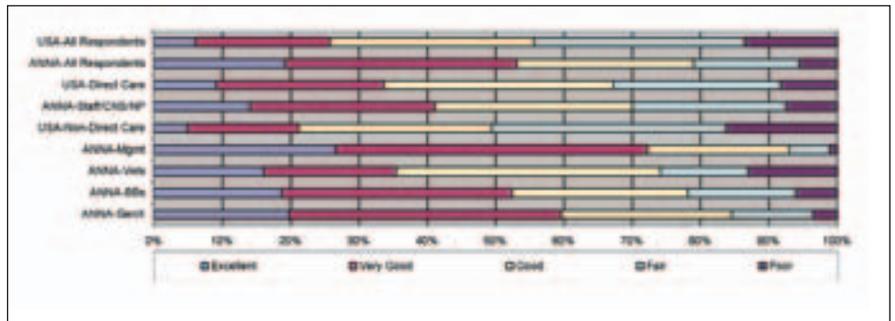
Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Figure 9**  
Nurse-MD Relationships



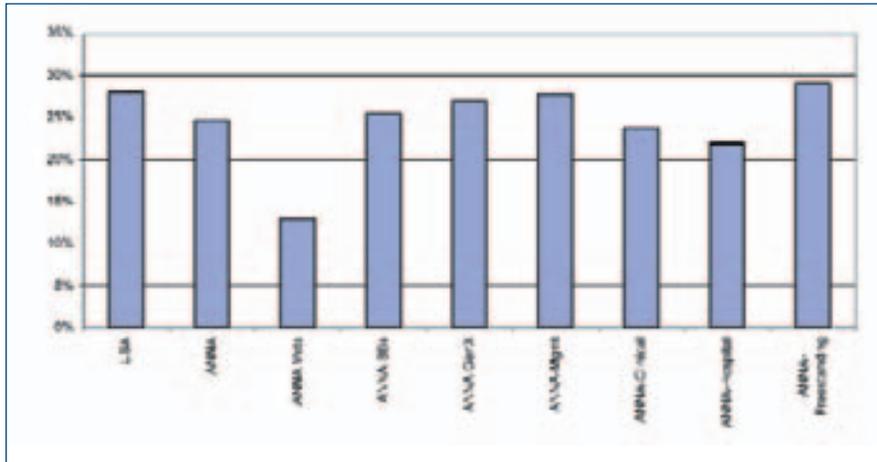
Source: Rosenstein (2002).

**Figure 10**  
Relationships: Nurses and Management



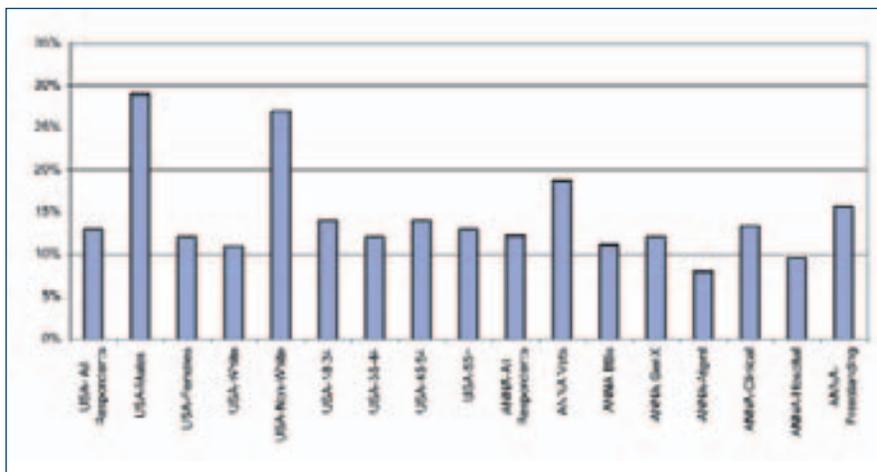
Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Figure 11**  
**Have Personally Experienced Violence in the Past Year**  
**While Working as a Nurse**



Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey

**Figure 12**  
**Have Personally Experienced Discrimination in the Past Year**  
**While Working as a Nurse**



Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Violence.** Nurses in both surveys were asked whether they had, in the past year, while working as a nurse, personally experienced episodes of violence in the work place. Twenty-eight percent of the NW/AONE respondents and 25% of the ANNA respondents said they had (see Figure

11). Rates differed depending on generation of the nurse, type of position, and work site.

**Discrimination, sexual harassment, and hostile work environments.** Discrimination, sexual harassment, and a hostile work environment are zero tolerance issues.

Federal law prohibits discrimination and harassment based on sex, race, national origin, religion, age, or disability. No occurrence is acceptable nor should any be tolerated.

When ANNA nurses were asked if, in the past year, in their work as a nurse, whether they had personally experienced discrimination based on gender, age, or race, 12.28% said they had (see Figure 12). While this is about the same percentage of occurrence found in nurses in general (NW/AONE survey), it is not acceptable. In the NW/AONE survey, higher percentages of males and nonwhite nurses reported discrimination and there were slight differences based on age. A higher percentage of older ANNA nurses (Veterans) reported the highest rate of discrimination. There were also differences based on type of position and work site.

When asked if in the past year, in their work as a nurse, whether they had personally experienced sexual harassment or a hostile work environment related to physicians, 8.81% of the respondents to the ANNA survey said yes compared to 19% in the NW/AONE survey (see Figure 13). For nurses in general, the reported incidence varied by gender, ethnicity, and age. For ANNA nurses, it varied by generation, position, and work site.

The members were also asked the same question about sexual harassment and a hostile work environment related to other staff, and a higher number of ANNA nurses, 11.75%, responded yes (see Figure 14). For nurses in the NW/AONE survey, a higher percentage of males reported such harassment and there were also differences by age. Within the ANNA responders, the percentage for the Veterans generation was much lower and there were differences in the percentages with regard to work site.

### Getting Back RNs Not Currently Working as RNs

In the NW/AONE survey, just over 16% of the respondents reported that they were not working as RNs. When asked the reasons they were not working as an RN, one-third of

these individuals reported that they had retired, 10% had chosen another line of work, 8% had health reasons, 7% needed to care for dependents, and 7% had chosen not to work. They were then asked how likely certain changes would be to cause them to consider returning to work as an RN. The highest rated item, by far, was a less-stressful working environment, with higher wages and better hours virtually in a tie for the second highest rating (see Figure 15).

**Future Workforce Participation**

RNs working as RNs in the NW/AONE survey were asked if they planned to leave their current nursing positions in the next 12 months or in the next 3 years or if they had no plans to leave within the next 3 years. Just over 56% responded that they plan to stay in their current positions for 3 years. Forty-two percent said that they planned to leave their current positions – 16% in the next 12 months and 26% in the next 3 years.

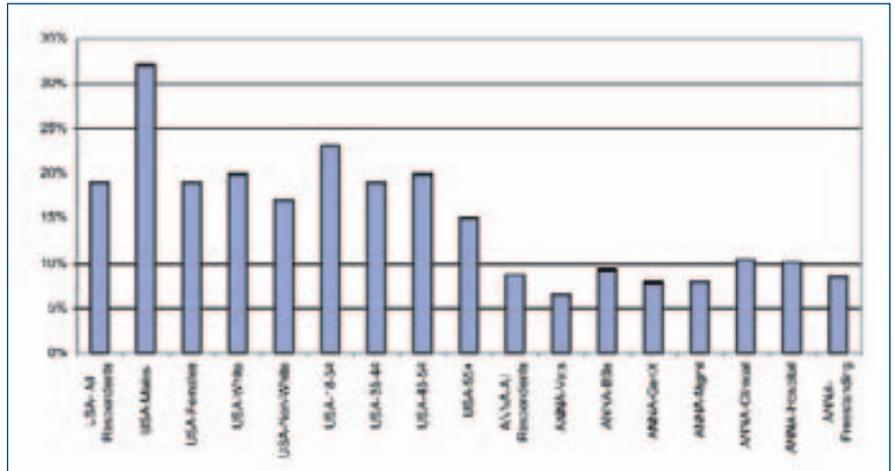
Of those who plan to leave, 61% will stay within nursing, planning to take a different position in nursing or returning to school to pursue additional nursing education, 14% report that they are doing so because of family or other personal reasons, 14% plan to retire, and 21% anticipate pursuing a job in another profession.

The nurses who said they planned to leave their present positions were asked the degree to which certain changes would cause them to reconsider. The results, shown in Figure 16, indicate that there are changes that could influence nurses not to leave. Higher staffing heads the list of influential changes, followed closely by better staffing, more respect from management, and more opportunities for professional development.

**Recruiting and Retaining New Graduates**

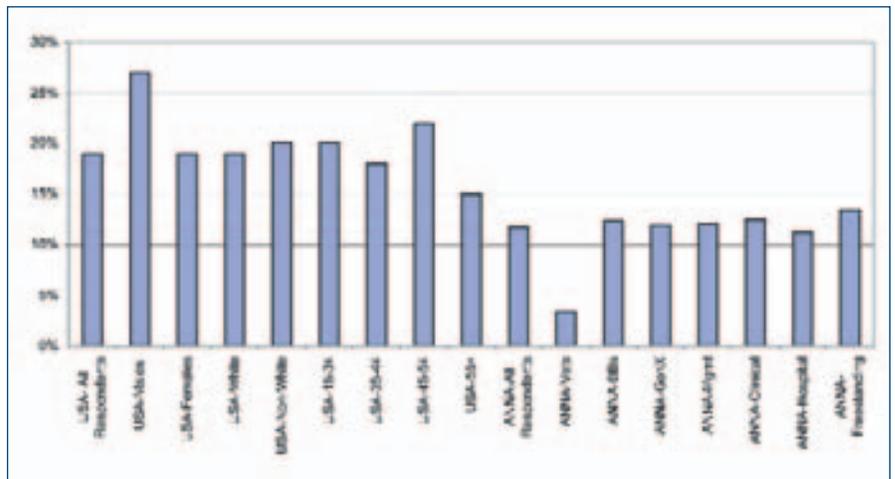
A recent study followed 35 new graduates from the months just prior to graduation in 2002 through their first year of practice (Ulrich, 2003). The study participants were representative of the general population of new

**Figure 13**  
Have You Personally Experienced in the Past Year, While Working as a Nurse, Sexual Harassment or a Hostile Work Environment Related to Physicians?



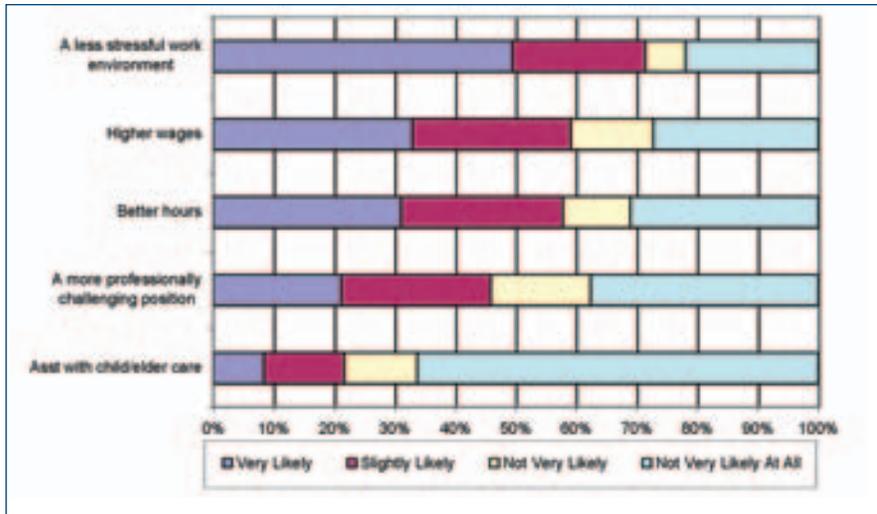
Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Figure 14**  
Have You Personally Experienced in the Past Year, While Working as a Nurse, Sexual Harassment or a Hostile Work Environment Related to Other Staff?



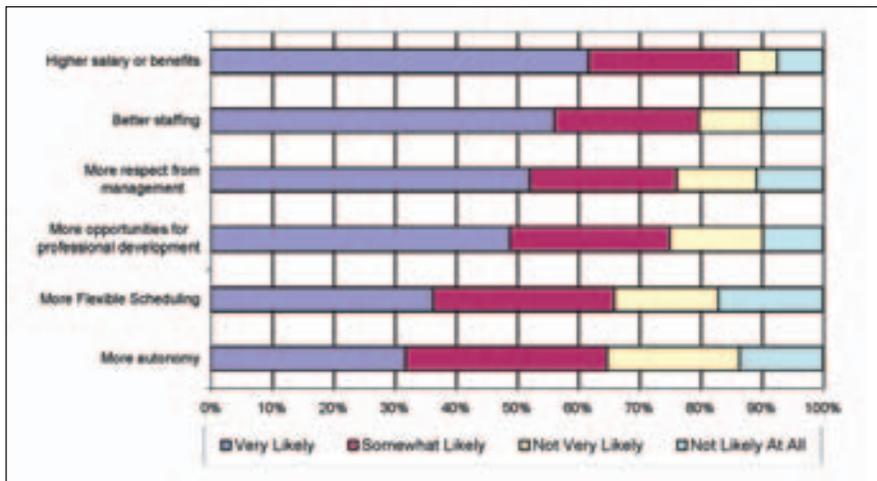
Sources: NW/AONE National Survey of Registered Nurses and ANNA Membership Survey.

**Figure 15**  
Getting Back RNs Not Currently Working as RNs



Source: NW/AONE National Survey of Registered Nurses.

**Figure 16**  
What Would Make Nurses Who Plan to Leave Reconsider?



Source: NW/AONE National Survey of Registered Nurses.

graduates with an average age of 29 years (range = 21-60 years) and with over 28% having another career before entering nursing.

The results indicated that successfully recruiting and retaining new graduates requires implementing strategies that minimize the likelihood of what Kramer (1974) described as reality shock, creating nurturing environments that ease the transition from

student to professional nurse, and providing encouragement and support. Students who worked part time during school and were encouraged to continue in that organization post-graduation were likely to stay in that organization. The presence of consistent preceptors appeared to heavily influence the time it took for new graduates to feel comfortable in their new roles. New graduates also report-

ed the need for additional clinical skills, clarification of the roles and responsibilities of other health care professionals, improvement of their abilities to organize and prioritize both their work and personal lives, and learning how to communicate and work with physicians.

### Recruiting The Next Generation Into Nursing

Solving the shortage of nurses in the future requires beginning now to encourage children and young adults to choose the nursing profession. In early 2000, Nurses For A Healthier Tomorrow (NHT) was formed as a coalition of over 40 nursing and health care organizations (including ANNA) who committed to work together to wage a communications campaign to attract people to the nursing profession. As a basis for developing the campaign, a study was conducted in August 2000 to determine how children viewed nursing as a career. Focus groups were held with 1800 school children in grades 2-10 throughout the U.S.

The results indicated that students saw no compelling reason to become a nurse. They viewed nursing as technical and supportive rather than professional, saw little room for career advancement, thought it was a girl's job, couldn't visualize where nurses worked, didn't like the uniforms or the unfavorable hours, and saw the job as emotional and stressful. Using this data, NHT created and launched a campaign that included public service announcements, promo materials and a web site ([www.nursesource.org](http://www.nursesource.org)) that provided career, resource, and educational information. The Colleagues In Caring Project, funded by Robert Wood Johnson, also spawned several projects aimed at recruiting young people into nursing.

In April, 2002, Johnson & Johnson committed \$20 million to a multiyear campaign (called "The Campaign for Nursing's Future") to attract more people into nursing. The campaign has included television, print, and interactive advertising as well as a website that provides information on nursing

as a career, schools of nursing, financial aid, and other information. ([www.discovernursing.com](http://www.discovernursing.com)). Over the first year of the campaign, J&J also hosted events to raise money for scholarships, nurse educator fellowships, and faculty development grants for nursing schools.

These efforts along with other state and local initiatives, a documented public respect for nurses as indicated in the last 4 years of Gallup polls, and the “giving back” values being exhibited by the Millennial Generation have combined to result in an increase in nursing school enrollment, reversing a 6-year trend of decline (AACN, 2003.)

Now we face another kind of problem. In many states, we have far more qualified applicants to schools of nursing than we have student slots for. Not only are current faculty members aging out and vastly underpaid, but not enough faculty positions are funded to accommodate the increased numbers of people who want to enter the nursing profession. Some states have provided additional faculty funding, though not enough. In several major cities, alliances have been formed between hospitals and schools of nursing in which the hospitals either fund faculty positions themselves or contribute time from their masters and doctorally prepared nursing staff members to teach and clinically supervise student nurses. These contributions have been quite successful in increasing the number of students that can be admitted, but there is still a gap in many places between the number of qualified students who want to go to nursing school and the number we have the faculty to teach.

### Potential Solutions

Given the information we have on the current and future shortage of nurses in general and nephrology nurses in particular, we can develop strategies to solve the shortage and, in doing so, assure adequate access to care by registered nurses – care that has been shown to improve patient outcomes. Strategies are needed in five distinct areas: prenursing school,

nursing school, entry into practice, reentry into practice, and the practice setting.

#### **Prenursing School.**

**Nurse heroes.** Young children look for real life heroes in their formative years and we need to share stories of nurses as heroes. Nurses are heroes everyday, but we don't tend to talk about that as much as we should.

**Influencers.** Children are influenced both directly and indirectly. One of the participants in the new graduate study said that she was influenced to choose nursing as she saw the intrinsic rewards and joy her mother got from being a nurse (Ulrich, 2003). Proudly discussing your role as a nurse can result in young people choosing nursing for themselves.

**Nursing vs. other professions.** While nursing is not an easy job, it does compare very positively with many other professions. Virtually no job in the United States is more secure than nursing. Salaries and benefits for nurses in many roles, especially with the increases seen since the beginning of this shortage, compare very favorably to other professions.

Nurses value professional relationships among ourselves and with others in the health care team as well as relationships with patients and their significant others. In nephrology nursing, we have long worked in multidisciplinary teams, maybe not perfectly, but certainly better than in many other nursing specialties. We also have a unique opportunity in both transplant and dialysis to form long-term relationships with patients and their families.

Nurses have many professional opportunities. One look around an ANNA meeting demonstrates the diverse opportunities available for nephrology nurses. We are staff nurses, managers, educators, nurse practitioners, corporate nurses, consultants, executives, case managers, transplant coordinators, organ procurement nurses, nursing school faculty (and deans), and much, much more. Additionally, few other professions

allow you to touch other people's lives in such a meaningful way as does nursing.

#### **Nursing School.**

**Lack of faculty.** Nursing schools are in need of help. They have too few faculty positions and the faculty they have are underpaid. Partnerships between service/practice settings and schools are one solution, but other solutions are also needed.

**Homogeneous faculty.** Faculty are aging out faster than other nursing cohorts. In addition to being largely older, they are also ethnically homogenous. A recent NLN study also indicated that more than 90% of the faculty are White/Caucasian (NLN, 2003). Faculties need to be more generationally and ethnically heterogeneous to meet the needs of their diverse student populations.

**Collaboration.** Collaboration between nursing schools and organizations in the service setting are mutually beneficial. Studies, such as the new graduate study discussed earlier, indicate a need for better collaboration between nursing schools and the practice settings to assure that students graduate prepared to function in their new roles so that reality shock is minimized or prevented.

ANNA could also collaborate with schools of nursing. Dialysis and transplant are often not included in nursing school clinical rotations so nursing students, knowing little about our specialty, only rarely consider nephrology nursing as a specialty they wish to pursue.

We are blessed in our specialty with many nurses who possess advanced degrees and advanced practice education – all of whom could contribute to the education of student nurses. Our specialty also offers a chance for students to work with medical patients, surgical patients, adults, children, and both chronic and acute patient populations. Furthermore, nephrology nurses have more experience working as part of multispecialty health care teams and doing care coordination than most other health care professionals.

If our dialysis units, transplant units, and other practice sites made a concerted effort to partner with schools of nursing by offering some of our qualified staff to teach and supervise clinical rotations and also offered our practice sites for those rotations, we could help increase the number of nursing students (and, therefore, ultimately the number of RNs) while at the same time having the opportunity to teach those students about a wonderful specialty that they may not now be considering.

### **Entry Into Practice.**

Successfully recruiting and retaining new graduates requires creating nurturing environments that support and ease the transition from student to practicing nurse. Preceptors and mentors are critical factors in this effort.

### **Reentry Into Practice.**

Nurses who wish to reenter practice are a potential resource to help ease the shortage. Many of them are even willing to work partial shifts, which can provide excellent short-term coverage during peak workload times. However, much like the new graduates, successful reentry into practice requires nurturing and supportive environments. Nurses who wish to reenter have the desire to return to nursing, but often need refresher and update courses to assure themselves and their organizations that they are clinically competent.

### **Practice Setting.**

Many of the strategies for addressing work environment issues in the practice setting can be found in the characteristics of Magnet hospitals. Numerous studies have shown that Magnet hospitals have increased patient safety, a higher quality of care, and superior nurse retention rates. The Magnet Nursing Services Recognition Program for Excellence in Nursing Service was established in 1993 and recognizes excellence in the management philosophy and practices of nursing services, adherence to standards for improving the quality of patient care, leadership of the chief nurse executive in supporting professional practice and

continued competence of nursing personnel, and attention to the cultural and ethnic diversity of patients and their significant others. Also recognized are the care providers in the system. Magnet status indicates excellence in nursing services, development of a professional milieu, and growth and development of nursing staff.

In discussing potential solutions in the practice setting, it is useful to prioritize strategies. Maslow's hierarchy of needs can provide the basis for such prioritization. Abraham Maslow was a humanist psychologist who believed that people will grow and actualize potentials if the environment is right, but will not grow if the environment is not right.

Maslow's hierarchy of needs includes, in order,

- physiological needs,
- safety needs,
- needs of love, affection, and belongingness,
- needs for esteem,
- self-actualization, and
- transcendence.

**Physiological needs.** Physiological needs include the basic needs of food, water, and shelter. Many nurses are the primary or necessary providers for significant others as well as for themselves. Providing for the physiological needs of nurses and those dependent on them requires adequate compensation, job security and a tolerable level of stress. As we have seen from the data, the majority of nurses believe they have adequate job security. Compensation, while improved, still does not meet the needs of many nurses. Stress, however, would appear to be the major physiological need to be addressed. The downstream effects of the nursing shortage have caused far beyond tolerable stress in many nurses that needs to be attended to in order to retain these nurses in the work place.

**Safety needs.** Safety needs involve keeping out of danger. Nursing is inherently dangerous, but many or all of the dangers associated with patient care can be minimized or prevented all together. A physically safe work environment and adequate precautions to guard against infections and exposure

to harmful agents are effective means of creating a safe work environment. The more pressing concern, based on the results of both the NW/AONE and ANNA surveys, is the reported incidences of violence, discrimination, sexual harassment and the presence of hostile work environments. Employers have both a moral and a legal obligation to provide safe work environments and most are trying to do so; however, the data from our surveys clearly indicates that their efforts are not working well enough. The only way to deal with discrimination, sexual harassment, and hostile work environments is to adopt and enforce zero tolerance policies and to make it safe for nurses to report occurrences when they happen.

**Needs of love, affection, and belongingness.** These needs relate to affiliating with others and being accepted. Relationships with co-workers are very important to nurses. While the nurses in the ANNA survey report better relationships with each other and with physicians than do nurses in the nationwide NW/AONE survey, there is still room for improvement. The discrepancy between the quality of the relationships between nurses and management is a major concern and should be addressed. ANNA managers perceive the relationships to be much better than do the direct care nurses.

**Needs for esteem.** Needs for esteem include needs to achieve, to be competent, and to gain approval and recognition, and are a major area of emphasis in improving nurse retention. Education and training for use of technology needs to be improved to assure competence. Management needs to recognize the importance of the nurses' personal and family lives. Control over practice and autonomy are also key esteem needs that need to be better met. Recognition and, more specifically, meaningful recognition, must be addressed. While these needs are important for all nurses, they are especially critical with new graduates and nurses entering a new specialty.

**Self-actualization.** Self-actualization includes finding fulfillment and recognizing one's potential. According to Maslow, an individual will act on

growth needs like self actualization only if the previously discussed needs are met. Nurses in the NW/AONE survey were clear that they like nursing as a career. For the most part, they also like their current jobs. Nurses want to help nurses work toward self actualization.

**Transcendence.** Maslow's original concept of a hierarchy of needs contained only one growth need, self-actualization, but he later added another level that he termed transcendence that includes helping others to find self-fulfillment and reach their potential. We have many opportunities for nurses to help other nurses and other health care professionals in the work setting and in organizations such as ANNA. The key is identifying those nurses ready to work toward this level of transcendence and providing them with the resources and encouragement to reach this ultimate level.

Maslow thought that the only reason people would not move toward self-actualization and transcendence was if hindrances were placed in their way. The question for us to keep in mind is "What hindrances are we placing in the way of nurses?"

### Summary

Successfully solving the nursing shortage will require work from the highest national level to work with individual nurses. People need to be recruited into nursing and faculty need to be available for them to be educated in schools of nursing. Practice settings and schools of nursing need to collaborate to produce new nursing graduates who are adequately prepared to assume the role of a professional nurse. Work environments must be improved in order to both recruit and retain nurses.

This nursing shortage is more severe and will be of much longer term than previous shortages. There is no one solution. By listening to nurses and working together, however, it can be solved.

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